

‘Etched into the Soul’: The Education of Shorthand-Writers in Late Antiquity*

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ABSTRACT

Surviving in excellent condition on papyri and wax tablets, the Commentary and other late antique shorthand manuals offer a new way to investigate the complexity and diversity of non-elite intellectual culture in the later Roman Empire. Stenographical skill and obedience were hymned by elite authors, but the methods used to inculcate that skill and extract that compliance have rarely been examined. This article, the first to subject shorthand pedagogy to social historical analysis, argues that the difficulty of the shorthand system increased the potency of the ideological lessons it delivered to its (predominantly non-elite, often enslaved) students. It finds that, in addition to technical instruction, the Commentary communicated a coherent, if troubling, vision of late ancient society and of the proper dispensation of power within it. Student-authored marginalia point to the successes and limits of the Commentary’s moral pedagogy and raise fresh questions about how non-elite communities developed their own intellectual identities and traditions.

Keywords: shorthand; non-elites; education; Greek papyri; wax tablets; writing culture

I INTRODUCTION

In second-century Oxyrhynchus, a local official called Panechotes once paid out a small fortune — 120 drachmas, enough to buy a house — to send away his house-slave Chairammon for an apprenticeship ‘to learn the shorthand signs’.¹ Modern readers have wondered why. What made stenographical training valuable enough to justify the outlay of such a large sum and the loss of Chairammon’s labour? Did he expect to recoup his investment by subcontracting Chairammon out for secretarial work in the future? Was he planning his own future literary career? Did he have so many slaves and so much money that sending away one barely made a difference?² Whatever Panechotes’ motivation, his enthusiasm for the project emerges clearly enough from the terms of the

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¹ P.Oxy. IV 724 (155 C.E.): πρὸς μάθησιν σημείων (Wilcken 1912: no. 140, 165–6; Lewis 2003), with Westermann 1914; Milne 1934: 3; Boge 1973: 105; Haines-Eitzen 2000: 60–1; Lewis 2003; Cribiore 2024: 70–8 (with thanks to Roger Bagnall for sharing advance proofs of the forthcoming monograph with me).

² Lewis 2003.

contract. Chairammon was to study with the stenography teacher Apollonius and his son Dionysius, living in a house full of stenographers until ‘the boy has learned the entire *Commentary*’ and could take shorthand ‘flawlessly’ (ὁμέμπως).³

In order to memorise the entire *Commentary*, the standard stenographical handbook used and learned throughout Late Antiquity, Chairammon would have to undergo a training regime that entailed quite a radical reshaping of the self. He would spend at least two years learning to match up several thousand words with the arcane symbols that represented them. Chairammon would fill, erase and refill notebooks with tricky sections of the *Commentary*, draw the signs, recite the words, drill the contents of his shorthand handbooks until the signs fell from his fingers as rapidly and accurately as words from his master’s lips. Even when his apprenticeship was finished and he returned to Panechotes, the rhythms of the *Commentary* would be his constant companion. The *Commentary* was the hidden text underlying every moment spent in dictation; it layered and coloured every interaction between author and stenographer. No other text, up to and including Scripture, played such an important role in their lives.

In learning the *Commentary*, Chairammon was participating in an activity all but reserved for the unfree. Seneca, the first Latin author to use the term *notarius* with the sense of shorthand-writer, knew stenography as a profession ‘of the lowest slaves’.⁴ The evidence we have, although it does not amount to a full demographic profile of shorthand-writers, largely bears out his words.⁵ Enslaved secretaries dominate the late antique textual sources which will be the focus of what follows.⁶ Even in texts that are reticent or uninterested in social status, the treatment of shorthand-writers often makes the fact of their enslavement clear enough: stenographers are exchanged as prized gifts between aristocrats and emperors, chivvied and pressured by promises of manumission, and punished with the brutal bodily mutilations associated with the unfree.⁷ There is some social variation: especially when facing hard times, some freed and freeborn individuals seem to have sought out shorthand training.⁸ Nevertheless, a wide range of sources in circulation down to the seventh century — laws, oratory, epigraphic material, medical texts, and life writing (including imperial biography) — frequently default to the assumption that stenographers, female and male, were human property.⁹

Late ancient authors were assiduous observers of their enslaved stenographers and they inherited many of the prejudices of earlier imperial authors. Throughout Late Antiquity as throughout earlier periods, stenography was culturally coded as a non-elite practice, ‘manual labour ... performed by house-slaves’, in Libanius’ contemptuous formulations.¹⁰ A stenographer bore the ineradicable mark of enslavement upon his

³ P.Oxy. IV 724: τοῦ παιδὸς ἀνειληφότος τὸ κομεντάριον ὅλον.

⁴ Sen., *Ep.* 90.25: ‘Vilissimorum mancipiorum ista commenta sunt’, with Teitler 1985: 176. Earliest use of ‘notarius’: Sen., *Apocol.* 9.

⁵ A valuable prosopography of over 450 *notarii* and *exceptores* attested down to the mid-fifth century is compiled in Teitler 1985. Teitler’s analysis was interested in those bearing the title of *notarius* rather than the skill of shorthand, and so his prosopography includes numerous attested or suspected *tribuni et notarii*, whose political positions do not seem to have entailed or required shorthand training.

⁶ On the prevalence of enslaved stenographers in this period, Teitler 1985: 27–34; Dionisotti 2022: 21.

⁷ As gifts: Philostr., *V S* 574; Euseb., *Hist. eccl.* 6.23.2; *Hist. Aug.*, Claudius 14.9; *CIL* 8.14431 (c. 330 C.E.). Promises of manumission: *CJ* 9.23.6; Julian., *Ep.* 17, 21, 23, 38. Mutilations: *Hist. Aug.*, Alexander Severus 28.3; Auson., *Epigrams* 16–17; *Life of Jacob the Notarius* (ed. Bedjan 1890: 189–200), 7–15.

⁸ e.g. Gregory of Nazianzus, *Ep.* 157; Sozom., *Hist. eccl.* 4.10.11; Amm. Marc., *Res Gestae* 20.9.9; 21.3.5; 21.4.6.

⁹ *CJ* 6.43; Amm. Marc., *Res Gestae* 18.3.2 (an enslaved *notaria*); Paulinus of Milan, *Life of Ambrose* 21, 33–5; Gregory I, *Ep.* 6.12. Epigraphy: *CIL* 6.33892 (Hapate, another enslaved *notaria*), 13.8355; *SEG* 4.594; *IG* 14.1528, with Dionisotti 2022: 21 n.39.

¹⁰ Lib., *Or.* 18.160–161: τὸν δακτύλον ἔργον ... τὰ τοῖς δούλοις προσήκοντα ... τέχνην ἔχοντες τὴν τῶν οἰκετῶν. Also *Or.* 1.154; 2.44; 13.28, 33, with Teitler 1985: 27–8; Dionisotti 2022: 21; Moss 2023; Criboire 2024: 74–7.

soul, and could never escape it, ‘for the enslavement of his earliest years has deprived him of all that is higher, all that is right and true, all that is free’.¹¹ When a fourth-century bishop imagined what it might be like to learn the *Commentary*, he described the experience in violent terms, as a brutal violation that scarred the soul: ‘If someone stripped away (a stenographer’s) fleshly body, they would see every inch of his soul scrawled over with the *Commentary* carved into it’.¹² However disturbing, the image communicated something important about the social realities underlying the late antique written word. Although there are indications that some stenographers, particularly those who worked for bishops and judges in major metropolitan and imperial centres, saw their social status rise from the middle of the fifth century, stenography as a form of labour was steeped in older ideas of subjection.¹³

Shorthand-writers were literate experts, but they also participated in a spectacle of power and obedience. Elite authors depict them working on their knees: head stooped, neck bent, tongue still.¹⁴ Inevitably, shorthand-writers accounted for a small minority of the enslaved population, but through their proximity to their enslavers and their involvement in textual production they shaped how powerful men and women thought about their human property writ large. The best private stenographers captured speech, no matter how fast it flowed, and at the same time became intimately familiar with the cast of their elite master’s mind, sometimes marking down his words before he had had time to voice them. This illusion of telepathy — which both impressed and unnerved — led viewers to speculate that their stenographers were not so much educated by humans as touched by celestial powers. ‘What God gave you this gift’, the fourth-century poet Ausonius asked in a poem dedicated to his enslaved stenographer, ‘that you would know in advance what I was about to say, and that your desires would mirror mine?’¹⁵ Stenographical training turned a student into an author’s second self, even as it made enslaved stenographers ever more unknowable to their masters.¹⁶

The role played by shorthand instruction in the shaping of enslaved students’ minds and worlds has never been fully examined. This article argues that shorthand instruction was a deeply formative experience, which left low-status stenographers with ways of thinking about their world that were inaccessible to their social superiors. The intellectual lives of stenographers deserve closer attention than contemporary elites were prepared to afford them. We can answer questions elite authors rarely asked by looking to an astonishing collection of handbooks and exercises used and created by late antique students learning how to take shorthand in the Greek East. These texts, written on wax, wood and papyrus, and recently restored almost fully to their late antique condition by the patient work of papyrologists, substantially reconstruct the curriculum followed and internalised by generations of shorthand-writers operating in the Eastern Roman Empire. This is particularly true of the *Commentary*, the most advanced stenographical handbook in use throughout Late Antiquity, which will serve as the focal point of our investigation.

¹¹ Them., *Or.* 21.249: τὸ γὰρ ἄνω αὐτῶν καὶ εὐθύ τε καὶ ἐλευθέριον ἢ ἐκ νέων δουλεία ἀφίρηται.

¹² Basil of Ancyra, *de Virginitate* 18: καὶ ὁ ἀποδύσας τὸ σῶμα ἴδοι ἂν αὐτὴν τῷ λεγομένῳ κομμένῳ πᾶσαν καταγεγραμμένην. Epiph., *Adv. haeres.* 71.1.8, an account of a synod in Sirmium in 351 C.E., provides the names of some of the Ancyran stenographers who may have been in Basil’s mind as he constructed this description.

¹³ See e.g. Basil of Caesarea, *Ep.* 334–5, with McNamee 2001: 112; Heath 2004: 263; Criboire 2021; Graumann 2021: 116. This probably does not equate to a broader rise in the social standing of stenographers during the fourth century, as has sometimes been argued (Jones 1964: 582–6; Teitler 1985: 34–7). It is more likely that we have been undercounting enslaved and low-status stenographers in this period than overcounting them. I plan to lay out this argument in full in an upcoming project.

¹⁴ Honoratus, *Vita Hilarii* 15; Skeat 1956: 183–6.

¹⁵ Auson., *ad notarium* 34–6: ‘deusque donum tradidit, / quae loquerer ut scires prius / idemque velles quod volo’. See also Mart., *Epigram* 14.208.

¹⁶ Geue 2022: 88–90.

This article makes the case that, in addition to providing technical instruction to students, the *Commentary* was also a source of moral authority.

To see this, we must begin with the ‘how’ of late antique stenography, tracing the internal mechanics of the shorthand system (Section II) before progressing to a discussion of the *Commentary*’s impact on the intellectual and moral worlds of its subaltern students (Section III). The *Commentary* emerges as a deeply ideological document, one which preyed upon the moral impressionability of its readers. From there, we set out to reveal the scope and limits of the *Commentary*’s moral programme, explored through two of the handbook’s prominent themes: subordinate speech and othering prejudice. These themes gesture to how shorthand instruction contributed to broader processes of social sorting in Late Antiquity. After outlining how the *Commentary* functioned as ‘teacher’, consideration turns to stenographical students as interpreters of the *Commentary*’s formal and ethical dimensions. Their responses are accessed through the student-authored annotations which survive in fragmentary copies of the *Commentary*, and through an exploration of the techniques stenographers in Christian settings developed to compensate for the *Commentary*’s limited expressive resources (Section IV). Secretarial responses can evoke student stenographers’ habits of reading and interpretation, and their eagerness to find opportunities for imaginative expression within and just beyond the confines of the non-elite classroom.

Contrary to Ausonius’ fantasy that a divine spark had kindled his amanuensis’s prophetic powers, shorthand instruction was a resolutely human endeavour. The text of the *Commentary*, which centuries of enslaved students chanted, copied, tripped over and changed, held up a compressed mirror to late ancient society, faithfully reproducing within its frame the priorities and prejudices of the world as its students would encounter it.

II THE HANDBOOKS: TRANSMISSION AND MECHANICS

Since stenographical papyri first appeared out of excavations at the turn of the twentieth century, scholars of ancient shorthand have worked to reconstruct the main handbooks, the *Syllabary* (συλλαβαί) and the *Commentary* (κομμεντάριον or κομμέντον), which guided the training of student stenographers.¹⁷ In 1934, the papyrologist Herbert Milne produced partial editions of both handbooks, relying principally upon two extensive papyri witnesses, P.Lond. 2561 and P.Lond. 2562, both dating to the early fourth century, along with a nine-leaf wax tablet preserving practice exercises written by late antique stenographical students (Add.Ms. 33270), and six fragmentary late antique papyri from Antinoë.¹⁸ More papyri and tablets, created between the third and seventh centuries C.E., trickled in over the decades. But until 2006, the *Commentary*’s text remained in significant disrepair. This changed when papyrologists Sofía Torallas Tovar and Klaas Worp discovered, in an otherwise unrelated late fourth-century manuscript, a list of hundreds of terms taken from the *Commentary*.¹⁹ Comparison and collation between this manuscript and other papyrological witnesses have resulted in a largely complete edition of the *Commentary* in its late antique form.

¹⁷ Milne 1934: 3; Boge 1973: 103–7; Lewis 2003. For the (still partial) reconstruction of the *Syllabary*, see P.Ant. I 6, with Wessely 1894; Mentz 1927.

¹⁸ Milne 1934; Torallas Tovar and Worp 2006: 75–78.

¹⁹ Torallas Tovar and Worp 2006. For additional stenographical papyri, see P.Ant. 2 105; P.Col. 8 207; P.Hal. 59, 62, 64; P.Berol. 5464; P.Berol. 6755–6; PSI 116v; PSI 281; with Coles 1970; Feinberg 1971: 53–6. For the oldest witness to the *Commentary*, see Pintaudi and Sijpesteijn 1978; Worp 2009.

Work on Latin shorthand instruction in the same period has revealed a parallel system conceived on identical lines in the late antique West, seemingly aimed at a similar class of student.²⁰ It has proven impossible to assign precedence to either the Greek or the Latin shorthand system, after more than a century of scholarship focused on the question.²¹ Perhaps more worthy of notice are the overlaps of methodology and content between the systems. Like students of the *Commentary* in the Greek East, budding stenographers in the Latin West memorised groups of signs arranged by topic, running the gamut from legal terminology to anatomy, place-names, and terms relating to family and kinship. Both systems make mention of emperors and authors reaching up to the second century C.E., but seem to omit references to later events and individuals, and the same problems of lexical coverage — lots of signs for arcane mythological terms, few for more pragmatic or recent vocabulary — applied to shorthand systems in both halves of the empire.²² Likewise, some bilingual training seems to have been a feature of both systems.²³

The work of reconstructing these handbooks has illuminated the scope — and the significant challenges — of the task that faced stenographical students. Students like Chairammon learned the shorthand signs by thoroughly internalising both the *Syllabary* and the *Commentary*.²⁴ These standardised handbooks took the form of bicolumnar wordlists, matching signs to the group of words they represent. The *Syllabary* was the shorter and simpler of the two handbooks. It consisted of around 100 signs for very common words, prepositions and inflected word endings. Once the *Syllabary*'s signs were familiar, the bulk of the student's time went on memorising the *Commentary*: a list of some 800 signs which stood for over 3,000 different nouns, verbs, adverbs and adjectives. In the *Syllabary*, one sign corresponded to one word, syllable, or particle. By contrast, each sign in the *Commentary* corresponded to a group of words, normally four (a tetrad) but occasionally as many as eight (an octad).

Mastering the *Commentary* took years. Learning how to wield the system of shorthand, to adapt it to the idiosyncrasies and unpredictabilities of live speech, took even longer. The handbook served as a guide to an extraordinarily difficult system of shorthand.²⁵ It was a system loaded with unnecessary complexities, seriously outdated even by the start of our period and deficient in its terminological coverage of large areas of late antique society. If the *Commentary* ever had a single author, we cannot know who it was, despite an active ancient interest in investigating the system's origins.²⁶ The *Commentary* drew on a limited, deeply archaising vocabulary, and its overall shape seems to have developed very little down to the seventh century, when our papyrological evidence starts to run out.

What did 'learning the *Commentary*' and using this system entail in practice? Deep memorisation seems to have been fundamental. Let us imagine the enslaved Chairammon taking dictation for Panechotes after successfully completing his stenographical training. If Panechotes dictated the word δοῦλος (incidentally, the word used to identify Chairammon in the apprenticeship contract), Chairammon would first

²⁰ Our best evidence for Latin shorthand practices comes from Carolingian manuscripts preserving the *Notae Tironianae* and shorthand annotations to other texts. See Ganz 1983; 1990. For shorthand pedagogy in the Latin West, we rely on the *Commentarii Notarum Tironianum*, a set of related shorthand handbooks circulating in the Carolingian period, edited in Schmitz 1893. This shorthand system seems to date back to the first or second century C.E., sharing a common ancestor with the *Expositio Notarum*, a fifth-century North African glossary taking its terms from shorthand manuals. See now Dionisotti 2022.

²¹ Wessely 1894; Gitlbauer 1896; Foat 1901: 261–4; Birt 1930; Mentz 1940: 52–3; Skeat 1956: 190; Boge 1973.

²² Milne 1934: 7; Torallas Tovar and Worp 2006: 174; Dionisotti 2022: 17–18, 26.

²³ For Latinisms in the Greek *Commentary*, see Menci 2001. For Grecisms in Latin shorthand manuals, see Dionisotti 2022: 38–9.

²⁴ Boge 1973: 105–14.

²⁵ McNamee 2001: 104; Dionisotti 2022: 17.

²⁶ Manilius, *Astronomica* 1.197–202; Sen., *Ep.* 90.25; Diog. Laert., *Vitae Philosophorum* 2.6.48; Isidore of Seville, *Etym.* 22.1–2.



FIG. 1. The representation of tetrad 71 in *Commentary* shorthand. (Drawing: author)

need to think of and draw the sign for the tetrad the word belonged to. In this case, that would be tetrad number 71: ἀπειλεῖ δεσπότης, δοῦλος σιγᾶ (‘The master utters threats, the slave falls silent’).²⁷ Its contents must have cut uncomfortably close to Chairammon’s own lived reality, as to that of many of the *Commentary*’s enslaved students. Without lifting his pen, Chairammon would have drawn the main sign for tetrad 71, a symbol that looks a bit like the lower-case letter delta, starting with the bowl of the sign and finishing with a stem which leans over so far it looks like it might topple (Fig. 1). The main sign for tetrad 71 is one of only a handful of signs that resemble actual letters. Perhaps Chairammon would have wondered: δ for δοῦλος or for δεσπότης?

After drawing the main sign, it was necessary to narrow down which of the tetrad’s four words was meant in the given context. This disambiguation was achieved by adding a miniature annotation — a tiny mark in the form of the *Syllabary*’s sign for the specific word’s ending.²⁸ Depending on the word order in the original tetrad, the annotation was placed at the corresponding cardinal point around this main sign.²⁹ Picture the delta-shaped main sign for tetrad 71 lying in the centre of a compass. If the word appeared first in the tetrad, it would be shown by adding an annotation directly above the main sign (North on the fictive compass), while the second word, in this case δεσπότης, was shown by an annotation to the right (East), and so on, clockwise around the main sign. Chairammon would need to recall that the word δοῦλος appeared as the third word in tetrad 71. He would then annotate the main sign with the *Syllabary*’s sign for masculine -ος endings below the main sign in the third cardinal position. Sign, tetrad, word order, inflection annotation; all had to be instantly and accurately retrieved and transcribed before the next word was voiced and the process began again.

III COMMENTARY AS TEACHER

a) *Mechanics*

This was a frenetic procedure. As the apprenticeship contract reveals, Panechotes was willing, ‘if he should be slow’, to go without Chairammon’s labour for months even

²⁷ References to individual tetrads use Milne’s numbering system, which is also adopted by Torallas Tovar and Worp 2006. Text from the *Commentary* is from Torallas Tovar and Worp’s edition.

²⁸ On their own, the main signs in the *Commentary* stand for commonly used words and phrases; see Milne 1934; McNamee 2001: 103–4.

²⁹ The order of words within tetrads was determined based on the vowels in the first syllable of each word: Boge 1973: 112; Torallas Tovar and Worp 2006: 32–3. This is unlikely to have made the process much simpler; after all, the stenographer still needed to remember — instantly — all the words belonging to a single tetrad to work out their order.

after the agreed two-year period of apprenticeship ended; as long as it took for Chairammon's speed in dictation to improve.³⁰ Elite authors cared greatly about how fast their words were transcribed and they spoke in clichéd terms about their secretaries' rapidity. The late fourth-century poets Prudentius and Ausonius both depict dictation as an activity performed frantically, 'headlong, at top speed' (*praepetis, praepetibus*).³¹ Slow stenographers were the object of curses, or even physical harm.³²

To train stenographers to keep up in such situations, two principles were central to the design of their training, as revealed by the handbooks. Let us think of these as the principles of 'uniqueness' and 'memorability'. 'Memorability' governed the way tetrads were deliberately shaped into coherent, meaningful phrases, rather than random strings of words slung together.³³ 'Uniqueness' held that each individual word should correspond to only one main sign. The *Commentary*'s approach to language was idiosyncratic but far-reaching: it broke apart a great lexical slab into separate, carefully arranged chunks of equal size. Each word found a home in one, and only one, tetrad.

The design principles of uniqueness and memorability had profound implications for the sort of social education the *Commentary* provided. For the *Commentary* effects the 'proverbification' of language, in which separate words and concepts are fused together in a stable, immutable way by being used only once in tetrads designed for vibrancy and ease of memorisation. Whether converting speech into shorthand or translating stenographic notes back into longhand, stenographers could not think of one word without thinking of it in the broader context of the tetrad. After years spent immersed in the *Commentary* and the practice of shorthand, words lost their independent connotations and merged into larger conceptual units.

In studies of the acquisition of regular alphabetic literacy, the point — generally only reached after many hours of practice — where the brain ceases to process words by individual letters and instead begins to capture entire word-units instantaneously is called 'automaticity'.³⁴ Secretaries also worked for tetradic automaticity, relentlessly drilling tetrads until the individual words within them blurred into the larger context of the whole. The 'uniqueness' principle ensured, then, that every word carried a single, fixed identity within one specific phrase. In this system, the ethical content of the phrases to be absorbed gains enormous importance. Many tetrads conjure scenes from daily life or encourage socially normative behaviours. Once a stenographer had mastered the *Commentary* to the point of automaticity, well past the point of analysing the contents of the tetrads themselves, it could be very difficult to dismantle the normative lessons which came with them. The whole of stenographical instruction was an extended exercise in the power of associative thinking. The persuasive force of the *Commentary*'s pedagogy therefore derived from its precise blend of formal and ideological features: the *Commentary* obliged shorthand-writers to accept its prefabricated associations between disparate concepts, to commit them to deep memory, and then to retrieve them within an instant.

b) Silence and Subordination

To see this play out, we can return to our pattern tetrad 71, describing a slave's silence in the face of his master's threats. On the page, master and slave shared a single sign, differing

³⁰ This was a common sentiment in shorthand apprenticeship contracts. For another example, see P.Oxy. 51 2988 lines 13–17 with Cribiore 2024: 75.

³¹ Auson., *ad notarium*, 20–1: 'praepetis dextrae fuga / tu me loquentem praevenis'; Prudent., *Perist.* 9.24: 'raptimque punctis dicta praepetibus sequi'.

³² Curses: Quint., *Inst.* 10.3.19. For a stenographer's slow writing punished by the forced infliction of a disfiguring facial tattoo, see Auson., *Epigrams* 16–17.

³³ Menci 1985: 262.

³⁴ Logan 1997; Hook and Jones 2004; Kuhn *et al.* 2010.

from one another only in the placement and curve of the annotation. The *notarius* could tell he had learned his material properly when his thoughts had welded together the threatening master and cowering, silent slave as a single entity, the whole tableau instantly before his eyes at the mention of any word from the tetrad. Achieving this state of deep memorisation took long hours of practice spent repeating the tetrad and its signs over and over again, until a secretary could be sure that he had absorbed not only the order of the words, but had also internalised their relationship to one another, such that he would not substitute in synonyms (such as οἰκέτης for δοῦλος, for example).³⁵ At the start of their career, as stenographers made the transition from the controlled conditions of the classroom to ‘live speech’, they would copy out main signs again and again on their tablets, trying to fuse together sign and tetrad. By muttering tetrads they risked sounding as if they were reciting magical incantations.³⁶ ‘The shorthand signs are useful’, Augustine had to insist to some spooked catechumens, ‘and they don’t embroil the learner in superstitious mischief’.³⁷ In the minds of those dictating, the role of a stenographer was simply to ‘minister to speech as it issues forth’.³⁸

This, then, was how *notarii*, so many of whom were themselves enslaved, learned to define and think about the term δοῦλος and how it stood in relation to δεσπότης. A phrase popular among late antique slave-owners held that ‘where there is no slave, there is also no master’.³⁹ The expression reminded elites of the crucial role slaves played in constructing and buttressing their masters’ honour. For fully trained *notarii*, the expression took on new meaning; in the writing room, there was no mention of ‘slave’, without master, threats and silence automatically springing to mind as well.

The message was reinforced by the *Commentary*’s streamlined procession of images. The *Commentary* spins through a series of single-use characters, set in tetrads describing evocative situations; a nervous couple begin a wedding procession (335), gravediggers dream fearfully of being chased by the Furies (467), generals plunder land and celebrate their victories (502), tax-collectors are subjected to their own audits (367), a shipwreck leaves its victim swimming for safety, soaked through, teeth chattering (435), gluttons banquet (454) and prostitutes are rebuffed (450). However vibrant individually, each character in this world of words and symbols gets only one action allotted to them; thus, in the world of the *Commentary* there is only one δοῦλος, and falling silent at his master’s threats is his sole action.

Accordingly, the practical methodology of the *Commentary* set the tone for future interactions between speaking masters and silent slaves. The few accounts of the experience of taking shorthand which survive from the secretary’s perspective emphasise the importance of watching an author’s face and trying to lip-read throughout dictation as an aide-mémoire.⁴⁰ This was a delicate task; eye contact between slaves and masters was ordinarily prohibited.⁴¹

In content as well as in practice, the *Commentary* leveraged the power of associative thinking for the social end of instructing its non-elite students about their place in late antique society. Tetrad 71 nestled among a broader selection of tetrads describing the life of the enslaved in conventional, if nonetheless horrifying ways.⁴² Other social

³⁵ For wax tablets and papyri preserving students’ lessons, see P.Vindob. G 26011g; P.Vindob. G 15561; P.Vindob. G 36660; P.Vindob. G 46162. See also Prudentius, *Perist.* 9.71–2.

³⁶ Criboire 2021: 222. For a fourth-century set of wax tablets preserving this repetitive work, see Add.Ms. 33270 with Foat 1901.

³⁷ Augustine, *de doctrina Christiana* 2.26: ‘ista(e) notae) nec discuntur illicite nec superstitione implicant’.

³⁸ Diodore of Tarsus, *Commentary on Psalm 45*: ὑπηρετεῖ κάλαμος ὁ ξυγγράφου λόγῳ προηγουμένῳ.

³⁹ Hilary of Poitiers, *de trinitate* 11.13: ‘ubi non est servus, neque dominus est’, and see Harper 2011: 326–48.

⁴⁰ Paulinus of Milan, *Life of Ambrose* 42: ‘me excipiente ac vidente’; Paul the Deacon, *Life of Gregory I*, 28; Theopistus, *History of Dioscorus* 6.

⁴¹ Harper 2011: 332.

⁴² 129: ‘It hurts; with effort he (the slave?) undoes the shackle’ (δάκνει, δεσμὸν μόλις λύει), and the linked pair of

distinctions, too, were everywhere apparent in the design of the *Commentary*'s tetrads.⁴³ Secretaries looking to see themselves and their world reflected back in the tetrads they strove to internalise would have found the *Commentary*'s consistent advocacy for non-elite silence in the face of elite domination.

Already encountered in the master's threats and silent slaves of tetrad 71, discussed above, the leitmotif recurs again and again. 'Make your choice: strive for silence', counsels tetrad 40.⁴⁴ Another tetrad, wryly titled 'the perfect man' (ἀνενδεής),⁴⁵ reinforces the theme of the ideal silence of household subordinates: 'an inferior is struck dumb, he is apprehensive, he dreads' (καταπλήσσεται εὐλαβείται ὀρρωδεῖ ὑποδεής).⁴⁶ A further set of tetrads addressed itself to the proper dispensation of speech, particularly the speech of subordinates.⁴⁷ 'When delivering a letter, address the matter concisely' tetrad 36 advises letter-bearers, who also benefit from tetrad 42's wisdom: 'Reply with the bare essentials, live with the consequences of your undertakings'.⁴⁸

The *Commentary* reinforced these moralising pronouncements by a sequence of negative examples, conjuring to view a cast of unfortunates whose social transgressions opened them up to mockery. These character sketches also centred on subaltern speech as disorderly annoyance: 'A woman who talks too much rumbles like the gutter behind a building' (648); 'Penniless and insignificant, the man drones on and on, mewing out pathetic excuses' (464).⁴⁹ As we have seen, the *Commentary*'s discussion of power dynamics emphasised the stressors and pitfalls of non-elite speech within elite institutional contexts. Over time and with frequent repetition, thumbnail sketches like this ideally passed from memory to instinct. They are illustrative of how, even within a closed-off subculture, powerless people might begin to patrol the moral boundaries that justified their disenfranchisement. For all that, the handbook's purview reached well beyond suggesting the precarity of its enslaved students' own social position; it is possible to see a similarly consistent ideology at work in the *Commentary*'s approach to othering on the basis of geography, ethnicity, gender, religion and race.

c) *Self and Other*

In aggregate, the *Commentary*'s tetrads provided an ethical education delivered by stealth. Societal norms, as expressed through the *Commentary*'s gnomic proverbs, were there to be absorbed, repeated, internalised, but not interpreted, or, much less, debated. As is becoming clear, the *Commentary* was no neutral compilation of symbols and words arranged by topic. Even though we cannot pinpoint the identity, status, or intentions of its author(s), we can recognise the argumentative agenda and coherent worldview at the centre of its methodology. Nowhere is this clearer than in the latter half of the *Commentary*, which features clusters of geographical and ethnic terms.⁵⁰ The

tetrads 239: 'The decisive man manumits his delighted human property' (ἀνδράποδον ἐπιγνούς ὄλβιον λυτροῦται), and 240: 'The hired mercenary drags away his spear-won war captive' (αἰχμάλωτον ἔλκει δορυκτῆτον μισθοφόρος). Also 148, describing the conduct of a slave merchant: 'He mistreats, he appraises for sale, he oppresses, he abuses' (αἰκίζεται ἐπιτιμᾷ κονδυλίζει λυμνίνεται).

⁴³ Thus the strand of tetrads incorporating vocabulary on women and girls; see below, Section III).

⁴⁴ αἶρεσιν ἐκλέγου, ζήλου σιωπῇ.

⁴⁵ A common descriptor of the Christian God throughout late antiquity, e.g. Clem. Al., *Paedagogus*. 3.1.1: ἀνενδεής δὲ μόνος ὁ θεός.

⁴⁶ Tetrad 147, Milne 1934: 28. See also 141: ἀποστέλλεται πέμπεται, προύνικος ὑπηρετεῖ ('Whether brought back or sent out, a carrier submits/serves'). For more secretarial annotations, see below, Section IV.

⁴⁷ 179: μαρτυρεῖ ἐρωτώμενος, κοινολογεῖται, ὑπουργεῖ ('He testifies under questioning, he deliberates, he renders service').

⁴⁸ 36: λαβὼν ἐπιστολὴν προσφάνει συντόμως; 42: ἀποκρίνου δεόντως, ὁμόσας ὑπεχε.

⁴⁹ 648: ῥαγδαία ῥαχμός ὀπισθοδρόμος τανταλίζει, with Lib., *Progymsmata* 26.22 and 464: μακρηγορεῖ ἐρεσχελεῖ οὐδάμινος μικρολόγος. See also 457: μακρολογεῖ περυσινὸς ὄνειροπόλος χθιζός.

⁵⁰ For the connection between these tetrads and the late Roman geographical imagination, see Racine 2009: 50–1.

associations embedded within tetrads allow us to see, with unparalleled clarity, the racial prejudices and preconceptions enslaved stenographers were encouraged to develop. The links tetrads forged between different peoples, groups and regions contributed to the *Commentary*'s overall push-and-pull effect. While the moralising tetrads encountered above sought to endow enslaved stenographers with a proper sense of their own social inferiority, the geographical tetrads at the back of the book supplied a safe set of foreign and othered targets for the aversion and condescension of its many non-elite students.

Consider the possible impacts of the tetrad which states 'from a distance, a black Ethiopian (is/resembles) an Indian'.⁵¹ Just as the tetrads examined in the last section forged adamant mental connections between the commands of the powerful and the corresponding silence of subalterns, here the link between Ethiopians and Indians is absorbed as a routine part of a secretary's memory repertoire. The mainland Greeks' confusion between Ethiopians and Indians is well documented and an extensively studied aspect of race-making in elite texts, but it is worth noting the different methods this form of non-elite education used to instil the same message.⁵² The *Commentary*'s 'uniqueness' principle means that Ethiopians and Indians are the only people — or, indeed, entities — to be described as black in the corpus. While the socio-cultural connotations of the ancient term μέλας and modern racialised 'blackness' are not directly comparable, late antique invocations of Ethiopian blackness drew on broader physiognomic concepts which identified blackness, like physical disability, as a marker of externalised sin.⁵³ The implicit but powerful webs of association drawn between distant and othered peoples, here exemplified by the connection drawn between Ethiopians and Indians, opens a window onto at least one corner of the non-elite racial imaginary.

This is more striking in view of the prominence of Egypt as a site for the training of stenographers, including the villages of Upper Egypt.⁵⁴ The first tetrad of the *Commentary* gestures to an Alexandrian origin (tetrad 1: 'Alexander builds a magnificent city'), and the geographical groupings further suggest an Egyptian provenance for the *Commentary* as it survives to us.⁵⁵ Some of the stenographers who memorised tetrad 364 would have been Ethiopian or Indian themselves, and many Alexandrian and Egyptian stenographers would have encountered Ethiopians and Indians in the course of transcribing lawsuits, church councils and sermons, or through other interactions. Tetrad 364, in its full, essentialising form, would have spoken to a complex set of audiences.

Where they do appear, women and women's experiences are subject to analogous treatment. The *Commentary*'s vocabulary choices framed women, money, marriage and violence as a set of interlinked phenomena. In the *Commentary*'s scheme, bridegrooms are pure (335) and fathers are helpful and trustworthy (11). Daughters and mothers, meanwhile, are caring: 'A daughter, a girl looks after the male' (258); 'A mother cradles her baby continuously' (62).⁵⁶ In the *Commentary*'s sole use of the word γυνή, the concept of womankind is entangled with the expenses of the marriage settlement: 'necessity, dowry, marriage-gift: a woman'.⁵⁷ The *Commentary* presents an ambivalent view of marriage; directed to students who might have been sexually available to their enslavers, tetrads acknowledge loss within legitimate, propertied marriage, as they also acknowledge violence within wanted and unwanted encounters outside of it.

⁵¹ 364: Αἰθίοψ μέλας πόρρωθεν Ἰνδός.

⁵² For mainstream elite views of the relationship between Ethiopia and India, see Snowden 1997; Byron 2003; Buckner 2019; Derbew 2022: 68–110, 149–59.

⁵³ Brakke 2001.

⁵⁴ Bagnall 1995; Wipszycka 1996; Lewis 1997.

⁵⁵ Torallas Tovar and Worp 2006: 167, 199.

⁵⁶ 258: ἄρρεν τρέφει θήλεια θυγάτηρ; 62: βαστάζει βρέφος μήτηρ συνήθως.

⁵⁷ 93: ἀνάγκη, φερνή, προίξ, γυνή.

Miscarriage loomed particularly large in the handbook's vision of Roman wifehood. Tetrad 88 warned that: 'The one given in marriage suffers, is subject to punishment, miscarries/is ruined'.⁵⁸ Childbirth, when it appears, is inextricable from loss: 'Labour pangs give birth to a stillborn infant'.⁵⁹ Most disturbing is tetrad 133: 'Heavy with drink, he forces himself on a lovely young woman'.⁶⁰ Scholars have suggested this depiction emerges from the conventions of New Comedy and exhibits a 'Menandrian colouring'.⁶¹ We might wonder whether all the *Commentary*'s readers interpreted it as quite so removed from reality. As we have seen, enslaved girls and women became experts in stenography too; late ancient authors mention them casually, without seeming to regard their gender as worthy of comment. The practice of late antique dictation was not exclusively single-sex, either; our admittedly small evidence base allows us to see female stenographers taking dictation for their male enslavers as well as male shorthand-writers working for the women who owned them.⁶² The *Commentary* presented its students' realities in ways that must have spawned varied and complicated responses.

We find similar dynamics at work in the *Commentary*'s racialised approach to religio-ethnic groups. The articulation of difference was particularly powerful in a grouping like tetrad 539: Χαλδαῖοι, Ἑβραῖοι, Μῆδοι, Ἰουδαῖοι ('Chaldeans, Hebrews, Medes, Jews').⁶³ This was a tetrad which saw particularly heavy use in Christian settings: both Hebrews and Jews are popular subjects of many of the Christian texts and sermons that were transcribed in shorthand by *notarii*.⁶⁴ The Church was one of the most prolific users of stenographic labour: many of the *notarii* we can identify by name or household context served in explicitly Christian settings — in the οἶκοι of bishops, in other clerical settings, or in the households of laypeople with documented Christian affiliations, and much of our direct evidence of notarial activity comes from the proceedings of church councils and from homiletic collections.⁶⁵ We know that the audiences of many late antique preachers included stenographers, whose thoughts as they worked would repeatedly graze tetrad 539 during stridently anti-Jewish passages. It mattered, therefore, that whenever Jews were mentioned, ecclesiastical stenographers would have instantly, perhaps unconsciously, connected them with Medes, traditional enemies of the Greek world, and Chaldeans, suspected in late antique law and homily as criminal purveyors of astrology and witchcraft.⁶⁶ Tetrad 539 delivers a concise framework for thinking about Jews, Persians and Chaldeans which tallied up with some sentiments common in late antique homiletic thought.

Given the *Commentary*'s predominantly non-elite audience, these geographical tetrads contribute a new way of understanding how the racial imaginary of enslaved learners assumed its shape. A strand of scholarship looking at the expression of othering and anti-Jewish rhetoric in late antique sermons has imagined that individual preachers had

⁵⁸ 88: πάσχει ἔκδοτος κολάζεται διαφθείρεται.

⁵⁹ 375: νόρκα ὥδις νήπιον τίκτει.

⁶⁰ 133: πάροινος ὥραιαν κόρην βιάζεται.

⁶¹ Gronewald 1979a; Menci 2001: 284; Torallas Tovar and Worp 2006: 176.

⁶² Amm. Marc., *Res Gestae* 18.3.2; CIL 6.33892; Sulpicius Severus, *Ep.* 3; Gregory of Tours, *Miracles of Martin* 4.10, and see above, n. 9.

⁶³ In elite literature, these groups were customarily associated with Ethiopians, Arabs, Indians and Syrians, with whom they were thought to share a common language and similar customs, such as circumcision: Hippol., *Chron.* 192; Basil of Caesarea, *Homilia in Hexaemeron* 2.6; Ambrose, *Hexaemeron* 1.8.29; Julian of Halicarnassus, *Spicilegium Romanum* 10; Priscian *Inst.* 5.11; Isid., *Etym.* 9.1.8–9, with Baasten 2003: 64–5.

⁶⁴ Stenographic records of sermons marked a preacher's eloquence: see Socrates, *Hist. eccl.* 6.4.9, 7.2.7. For the practice of stenographically transcribing sermons, see Deferrari 1922; Hagendahl 1971; Hunink 2001; Farag 2022: 619–26.

⁶⁵ Hence the ecclesiastical focus of Teitler 1985; see also Criboire 2021: esp. 225–8.

⁶⁶ Kahlos 2019: 200ff., with CTh 9.16.4 (357 C.E.) = CJ 9.18.5 = *Brev. Alar.* 9.13.2; *Collatio Legum Mosaicarum et Romanarum* 15.1.3 (c. 315 C.E.); Jer., *Commentary on Daniel* 1.2; Euseb., *Praep. evang.* 9.32.

enormous power to shape and sway a congregation's perceptions of the other communities who lived among them and just beyond their borders.⁶⁷ But the influence of preachers was necessarily limited and, as the *Commentary* shows, in making sense of the attitudes and prejudices of the enslaved and those at the lower edges of society, we must look to a richer set of sources.

The *Commentary* reveals a side to the formation of its students' attitudes that is obscured by conventional textual sources; these tetrads make visible something, however partial, of the racial environment that enveloped enslaved stenographers in Late Antiquity. Importantly, the textbook hints at *how* these non-elite students learned, rather than necessarily *what* they learned: the contents of the geographical tetrads do not radically challenge our understanding of late antique axes of prejudice. But what we learn specifically from the *Commentary*'s pedagogy is how these categorising impulses might be cultivated inside the non-elite schoolroom as well as from the pulpit. Our attention is deflected away from the overstated influence of florid elite rhetoric and towards the banal, frequently rehearsed aphorism as a critical factor in the shaping of stenographical students' attitudes.

The *Commentary* can only show us so much of the messy, imprecise process by which subordinate stenographers were taught to approach the world and the peoples in it. But the handbook's sequence of geographical and gendered interconnections does raise the issue of what impact the *Commentary*'s ideological programme had upon its readers. We must now turn to a consideration of the practical habits of the stenographical classroom, and to the ways in which non-elite students were shaped by, and responded to, the *Commentary*'s social and moral pedagogy.

d) Cognition

Many of the *Commentary*'s theses on social order and correct behaviour are familiar from elite texts. Although the education that elite Romans and enslaved stenographers received diverged in methodology, the two regimes functioned in the same way: both systems, elite and non-elite, trained their students to negotiate the hierarchical norms of late antique society. Stenographical schooling prepared non-elite students for a life of social disadvantage just as elite education readied the sons of the wealthy for their positions atop the late antique social order. Compared to the *progymnasmata* which introduced similar lessons to the sons of the late antique governing elite,⁶⁸ the methodological efficiency of the *Commentary* could remove the associations within tetrads from the realm of conscious thought and turn these connections into the stuff of instinct.

The tension between these two pedagogies made itself felt in the writing room. A stenographer's primary social function was to demarcate important from unimportant speech. As recorders of speech, they transformed 'a stream of sounds, that pass away on the wind as soon as they are voiced' into a permanent, tangible object.⁶⁹ Their presence, and their silence, signalled the speaker's cultural worth. And yet. Every action, or whisper, or shift could be interpreted as a lack of deference. The mere presence of stenographers in a writing room was enough to infuriate the authors who depended on their labour. Quintilian complained that 'our stenographers pressure us to rush our compositions, and then it becomes embarrassing to hesitate, or re-state our arguments, or change our wording'.⁷⁰ Jerome, too, flinched under his secretary's unnerving scrutiny. 'Whenever I have to hesitate even a little, my secretary rebukes me wordlessly. He tenses his hand, wrinkles his brow, and proclaims the utter pointlessness of his presence with

⁶⁷ Wilken 1983; Wilson 1993; McDonald 1993; Shepardson 2003; Veldt 2007; Fackler 2015.

⁶⁸ Cribiore 1996; Gibson 2008; Dickey 2012.

⁶⁹ August., *Comm. Psalm.* 44.6: 'quia quod lingua dicitur, sonat et transit; quod scribitur, manet'.

⁷⁰ Quint., *Inst.* 10.3.19: 'ille, cui dictamus, urget, atque interim pudet etiam dubitare aut resistere aut mutare'.

every tiny movement he makes'.⁷¹ One seventh-century bishop reportedly tried to solve such problems by positioning his secretary behind a curtain.⁷² Yet, even by maintaining absolute stillness, secretaries could inhibit other habits integral to composition: 'Flinging your arms around, cocking your head side to side, occasionally slapping your chest or your ribs — all the gestures which accompany clear thinking, or even stimulate it in the first place, appear ridiculous when we're not on our own.'⁷³

The *Commentary* aimed to reduce these tensions by training secretaries' affective responses in ways that would render them pliant and obedient to the norms of elite governance. While undergoing their training, shorthand writers may have been just as influenced by the *Commentary*'s architecture as by its contents. The handbook arranged tetrads in thematic blocks, and stenography students learned signs sequentially by section.⁷⁴ Working their way through sections on morals, anatomy, history, comedy, law, by the time they made it to the groupings of places, races and peoples at the back of the book, they were masters of the *Commentary*'s methodology.⁷⁵

The arrangement of tetrads into categories was not only for the sake of organisational neatness: it also had an important affective dimension. Different sections of the *Commentary* were designed to inspire different emotions in students as they worked their way through, from sadness to outrage to fear to contempt. Tetrads 165 to 179 were seemingly grouped together to evoke in the reader pity and hopelessness in the face of life's catastrophes. Successive phrases describe old age, poverty, starvation, poisoning, faulty medicine, desperation, death, mourning. Tetrads 215 to 225 describe the sensations of warfare: the clamour of battle, the blare of a war-trumpet, the sight of a satrap arming himself, a whipped warhorse, a defended encampment.

It is clear from surviving wax tablets, which preserve genuine classroom practice, that some sections saw more use than others. A sixth-century student wore through the wax of three separate tablets while transcribing tetrads 31–40 which provide milquetoast advice on refraining from excess, including excess alcohol (e.g. 'pursue wisdom but avoid inebriation'; 'practise self-control, stay sober always').⁷⁶ This section of the *Commentary* — by turns pious, disciplinary and banal — was exceedingly popular as a stenographical lesson, judging by its barbed pedagogical tone and overrepresentation in our surviving evidence.⁷⁷ Elite authors accepted that the repetitive physical and mental strain of copying down shorthand could be punitive and exhausting enough to leave stenographers feeling unwell or bitterly resentful.⁷⁸ Perhaps copying out these tetrads was a commonly assigned punishment, a late antique version of writing lines, leaving some extant wax tablets as a direct relic of classroom discipline.

In light of the popularity of discussing the interactions between violence and education in late antique texts, it is no surprise to find within this 'disciplinary' section the adage:

⁷¹ Jer., *Comm. in Ep. Paul.* 3.5.6: 'verum accito notario ... si paululum vovero cogitare melius aliquid prolaturus, tunc me tacitus ille reprehendit, manum contrahit, frontem rugat et se frustra adesse toto gestu corporis contestatur'. Also Moss 2023: 22.

⁷² John the Deacon, *Vita Gregorii Magni* 28.

⁷³ Quint., *Inst.* 10.3.21: 'tum illa, quae apertiore animi motum secuntur quaeque ipsa animum quodam modo concitant, quorum est iactare manum, torquere vultum, sinum et latus interim obiurgare ... etiam ridicula sunt, nisi cum soli sumus'.

⁷⁴ For a similar organisational principle operating in the late antique Latin shorthand system, see Dionisotti 2022: 8–12, 16–19.

⁷⁵ See the divisions suggested by Stroux 1935; Torallas Tovar and Worp 2006: 165–7.

⁷⁶ 34: ἄσκει σωφροσύνην νῆφε διηλεκῶς; 35: κραιπάλην περιστάμενος σοφίαν διώκε. See Mentz 1940: 60–3; Brashear and Hoogendijk 1990: 21–54 (no. 108).

⁷⁷ Tetrads from this section are found more frequently in papyri and wax tablets than any other part of the *Commentary*: for those that single out this section, see Halle Tablets 59, 60, 63 (VI); P.Laur. IV. 146 (III/IV); P.Bodl. 1.41 (VI/VII); P.Ibscher II (VI/VII), with Mentz 1950; and Vienna Greek Wax Tablet 4 (VI), with Harrauer and Pintaui 2002.

⁷⁸ Lib., *Ep.* 131; Prudent., *Perist.* 9.71–2.

‘Punish liberally, teach through rebukes’.⁷⁹ In later evidence, from the fifth century on, this tetrad gains a titular nickname, a further mnemonic device used by stenographers in training to distinguish one tetradic scenario from another: tetrad 37 is named διδάσκαλος (‘the teacher’).⁸⁰ It neatly confirms and reifies the closeness of the connection between violence and pedagogy, observed at all levels of late antique society. Tetrads both depicted the world of their students and sought to usher that world into being. The *Commentary*’s affective landscape reinforced its moral and social lessons; with each section eliciting a subtly different emotional response, students’ encounters with and progress through the curriculum were curated.

The *Commentary* could appeal to the imagination, too. Some tetrads are abstract but vibrant, evocative, wistful. ‘The wagon-driver, the thoroughfare, the afternoon unyoking hour, bitter words’, runs tetrad 666, denoted by a sickle-shaped main sign, conjuring images of tempers flaring on the roadside (σκινδάλαμος is a lovely word for ‘splintering, quibbling over nothing’) amid the noise and heat and discomfort of handling animals in the baking afternoon sun.⁸¹ The *Commentary* thus encouraged its students to memorise signs by appealing to their visual and sensorial imagination, setting characters in striking poses and vignettes, and organising personality types around a shared gesture or expression: ‘Who hangs his head? The (defeated) pankratiast, the debtor, the housekeeper’; ‘A patricide is rebellious; a matricide is unhappy’; ‘the procurer smirks, the prostitute smiles’.⁸² Undoubtedly, this aided the memorisation process — many studies have shown the transformative difference emotional engagement makes to mental retention — even as it also trained students in the proper ways to feel about the structures in which they were enmeshed and the individuals and groups they observed around them.⁸³ In the reading climate of the late ancient world, encountering literature was a fundamentally emotional experience. The idea of even a ‘subliterary’ textual form like the *Commentary*’s tetrads evoking a strong affective response in the students compelled to pore over them would be entirely in keeping with society’s expectations of the power of the written word.

It is worth thinking through what deeper effects this style of learning might have had on its students. Modern studies have shown the way the brain itself changes when an individual undertakes the sort of memory project late ancient stenography represented. The process of mastering the *Commentary* is likely to have had deep neurological ramifications, remaking cognitive structures in a way analogous to the impact on brain development incurred by early acquisition of literacy.⁸⁴ Even if undertaken after adolescence, a memory project like the *Commentary* can rewire neural pathways. Several studies of brain development have focused on London taxi drivers as they studied for and eventually mastered ‘The Knowledge’, a certification exam which requires candidates to memorise the entire road map of London and compose the fastest route between any two points on demand. This looks very much like another example of elite preferences and convenience shaping the brain chemistry of a socio-economic underclass. By the end of the taxi drivers’ three or four years of preparatory study, their brains had developed significantly more dense grey matter in the posterior hippocampus, a region associated with information storage and spatial reasoning.⁸⁵

⁷⁹ 37: ἀρέσκων ἐπίπλησσε, νουθετῶν δίδασκε.

⁸⁰ For later captions of this sort added by students to copies of the handbook, see below, Section IV.

⁸¹ 666: ἀμαξηλάτης λεωφόρος βουλυτὸς σκινδάλαμος.

⁸² 480: πανκρατιαστής, χρεωφειλέτης, οἰκονόμος δυσωπεῖ; 445: πατραλοῖας ἐπανάσταται μητραλοῖας δυστυχῆς; 144: μάστροφορος σέσηρεν πόρνη μειδίᾳ.

⁸³ Isen 1984; Small 1997; Rusting 1998; Holland and Kensinger 2010.

⁸⁴ Huettig *et al.* 2018; Satapathy *et al.* 2020.

⁸⁵ Woollett and Maguire 2011; Griesbauer *et al.* 2021.

The period of study, the magnitude of the corpus and the necessity of constant practice are just some of the relevant comparanda for the analogy between modern taxi drivers and late antique shorthand-writers. Clearly, we cannot run similar tests of hippocampal development for the latter group, but some studies of modern shorthand-writers have revealed similar changes to brain structures, resulting in sharpened motor-neural control and improved executive function, among other changes.⁸⁶ It is necessary to look to modern studies for help with understanding the ramifications of the late antique stenographical project because of the way this memory system combined enormous complexity with a requirement for breath-taking speed of retrieval. Ancient shorthand-writers, like modern taxi drivers, could not learn their trades passively; one could memorise the *Commentary* in order, tetrad by tetrad, but, like the Knowledge, using it meant jumbling its sequences and creating new patterns and rhythms out of a broader repertoire of memorised materials.⁸⁷ In this creative act of forming new symbolic syntheses, the cognitive effects of the differential training available to shorthand-writers made itself felt.

So far, we have focused on what the *Commentary* is likely to have done to its most diligent students. But the *Commentary*'s pedagogical techniques could only have been efficacious in shaping students' worldviews if stenographers learned to read tetrads as self-contained narrative units and viewed them as potential sources of moral instruction. The remainder of the discussion will consider the responses of students of shorthand to the *Commentary*'s tactics and contents, as well as the problems of interpretation these responses raise. How far can the internal evidence of stenographical handbooks reveal the uses to which students put them? Secretaries, the perennial writers of Late Antiquity, have left few clues to their own responses to the socio-cultural system they experienced. But the canvas is not completely dark. Evidence of how stenographers interpreted and analysed their training will be accessed in two ways: first, through looking at how secretaries overcame the challenge of the *Commentary*'s silence on Christianity; and secondly, through examination of what the marked-up, annotated papyrus witnesses to the *Commentary* reveal about how secretaries received the moral guidance delivered by the rhythms of stenographical education.

IV RESPONSES

a) *Christian Shorthand*

For all that the *Commentary*'s vast store of signs and verbal referents must have seemed overwhelming and endless to the students tasked with internalising them, its basic lexicon is in fact quite limited. The handbook's vocabulary ignored many of the aspects of everyday life that mattered to its students. Even in the sixth century, it was stuck in a resolutely pagan reality, lacking most terminology relating to Christianity and its infrastructure. Although secretaries were obliged to commit to memory baroque tetrads such as 'the half-barbarian Ganymede pours nectar like wine', or 'an Amazon, far-famed for spear-wielding, helps make preparations', whose elaborate vocabulary surely did not come up all that often in dictation, self-referential words like 'sign', 'commentary' or even 'syllable' make no appearance in what survives and nor do relevant neologisms and loanwords like νοτάριος, ἐκσκεπτῶρ or ταχυγράφος.⁸⁸ Although there is strong evidence that a few variants of the *Commentary* circulated in

⁸⁶ Hillestad 1977.

⁸⁷ On the *Commentary*'s Latin counterpart, Dionisotti 2022: 24: 'the job of the *notarius* was to teach a skill, *how* to create and combine signs in order to record whatever was being said' (emphasis original).

⁸⁸ 544: Ἀμαζὼν ἐπίσημος δορυφόρος συσκευάζει; 573: Γανυμήδης νέκταρ οἰνοχοεῖ μιζοβάρβαρος.

the Roman imperial period, by the fourth century it had assumed its standardised form.⁸⁹ Our earliest papyrological witness would have struck even its first users as an old-fashioned document. Stenography manuals shared with elite grammatical educational programmes a common commitment to the cultural pretensions of the Second Sophistic.

In areas of life which exceeded the reach or temporal scope of the archaising *Commentary*, stenographers therefore had to find ways to supplement or actively manipulate shorthand's expressive possibilities. There was nothing unusual in this; the different contexts in which stenographers found themselves, from taking down technical documents to recording oratorical performances, to capturing dictation of letters or even poems, naturally strained the lexical resources of the *Commentary*. Enslaved *notarii* labouring in private households had to figure out how to render the in-speak of their owners, peppered with local names, places and oblique references. Jerome, for one, relished the fact that his wide-ranging vocabulary sometimes 'tripped up' shorthand's 'disingenuous mechanics'.⁹⁰ Secretarial skill was understood to reside as much in finding creative solutions to these difficulties as in transcribing accurately and at speed.

However, for shorthand-writers whose work took them to ecclesiastical councils, the task became more complex.⁹¹ The expansion of technical vocabularies of dissent within the Church sped the development of an unofficial system of signs which transcended the *Commentary*'s offerings but must have been spread by consensus among stenographers. In the absence of actual shorthand transcripts of councils, we see this mechanism most clearly when it goes wrong, as it did at a fateful moment of the Council of Chalcedon in 451 C.E. Bishop Dioscorus of Alexandria, in full rhetorical flow, is recorded in the *Acta* as saying 'I have a copy [of five conciliar documents], and so does whatshisname and whatshisname (ὁ δεῖνα καὶ ὁ δεῖνα ἔχει)'.⁹² The stenographers clearly missed the names or could not take them down quickly enough. Since Dioscorus was exiled along with his stenographers before the conciliar transcript could be assembled, his shorthand-writers could not be consulted. It is likely, however, that the rarity of these mistakes actually confirms the overall efficiency of the process of conciliar transcription.⁹³

Beyond finding signs for unfamiliar names and places, stenographers also had to confront new confessional terminology. Church councils conducted ever more minute discussions of Christology and generated increasingly abstruse descriptions of religious deviance. With the delineation of a new confessional boundary, a technical lexicon sprang up to define and contrast the belief profiles of those on either side of it. Lexical difficulties piled on top of the practical challenges stenographers faced at councils; a cacophony of languages and accents, an unstable, shifting authority structure, and the unpredictable prospect of working with a coalition of other stenographers from distant places.⁹⁴ These problems were compounded by the requirement that stenographical transcripts be standardised enough to be comprehensible to the stenographers trained throughout the empire who converged on church councils.⁹⁵ It was fairly trivial for a single secretary or even a household team to supplement the *Commentary*'s lexical offerings by inventing signs to render a particular author's idiolect. Whatever symbols they came up with only needed to be understood by a very limited and localised group of shorthand-writers. By contrast, how were ecclesiastical *notarii*, who had to come up with sophisticated workarounds even to find a stenographic expression for the term

⁸⁹ McNamee 2001: 104–5.

⁹⁰ Jer., *Ep.* 117.12: 'signa ac furta verborum volubilitas sermonis obrueret'.

⁹¹ Graumann 2021.

⁹² *Acta Concilii Chalcedonensis* 1.159 with Theopistus, *History of Dioscorus* 10–12.

⁹³ Criboire 2021: 230–32.

⁹⁴ Graumann 2021.

⁹⁵ Price and Gaddis 2005: 75.

‘Christian’, supposed to use shorthand to convey the new accusatory acclamations, like ‘anathema!’ and ‘Nestorian’, that echoed through late antique council chambers?

The most obvious solution was to repurpose some of the *Commentary*’s pagan vocabulary. Indeed, it seems that the needs of Christian *notarii* had already begun to reorient the structure of the *Commentary* by the late fourth century, bringing up the most promising and helpful tetrads to the front of the handbook. The *Commentary*’s first eighteen tetrads offered a trove of useful terms to the enterprising Christian stenographer: tetrad 3 provided the shorthand sign for the word σωτήρ (‘saviour’), while πίστις (‘faith’) could be found within tetrad 10. Tetrad 6, μακάριος εὐχεται, θρησκειῦει ἱερεὺς (‘the blessed one prays, the priest officiates’) provides a set of terms popular in Christian ceremonial; πατήρ ὠφελεῖ προθύμως υἱόν (‘a father eagerly aids his son’, tetrad 11) with its Trinitarian nouns helped those *notarii* tasked with taking down simple Christian tracts, while ἀληθῆ λέγων ποιεῖ δίκαια (‘behave justly and speak truth’, tetrad 15) also captured some important theological buzzwords of late antique liturgy.

Stenographers were occasionally more overt in Christianising the handbook. Two unrelated papyri, one from the fourth century and the other dating to the sixth or seventh, change a pagan reference to multiple ‘gods’ into a singular ‘God’ in the phrase ‘Hymn the praise of God/the gods with piety’ (tetrad 17, ἄρετὴν θεῶν/θεοῦ ὁσιῶς ὕμνει).⁹⁶ But this solution was not a panacea. Tetrad 17, our most direct evidence of the *Commentary*’s Christianisation, in fact shows the limits of what secretaries were prepared to do to make stenographical handbooks conform to their own expressive needs. Shorthand-writers might repurpose and occasionally reorder promising tetrads, but they would almost never rewrite them.⁹⁷

This semantic friction, the invocation and repositioning of the *Commentary*’s archaising tetrads in a society whose frame of reference had fundamentally changed, invites further thought on how the *Commentary*’s rigid lexical restrictions worked to spur stenographers to communicate with one another. In transferring the *Commentary*’s shorthand signs to ecclesiastical settings, stenographers had to reckon with embedded anachronism; they needed to decide how to adapt the rules and contents of shorthand to fit their own ends and to develop modes of expression that could move beyond the confines of the *Commentary*, to weather the increasingly complex speech environments in which they served.

b) Secretarial Annotations

Despite all the *Commentary*’s praise of subordinate silence, its late antique students were not voiceless. They understood the *Commentary*’s tetrads as a form of compressed advice literature, and they left their responses to its exhortations inscribed on the page alongside their copies of the text itself. In fragmentary papyri, glossaries, and wax tablets, we find stenographers’ annotations in the form of one-word titles or captions summarising, expanding or passing judgement on the content of individual tetrads. These one-word captions likely aided the mnemonic process, but they may also allow modern readers to gauge how students might have used the *Commentary*, how they created self-referential narratives out of seemingly arid linguistic materials, and how they expressed disgust, outrage or agreement in response to the narrative world of the *Commentary* which emerged from such acts of collective story-telling.

Stenographical captions reveal their authors to have been alert readers of the *Commentary*’s tetrads, engaged in the sort of glossing and definitional work that

⁹⁶ P.Laur. IV.146; P.Ibscher. II. For the argument that this was a result of Christian tampering, see Mentz 1950: 5.

⁹⁷ Although consider Moss 2023: 30 n.113.

characterises much ancient scholarship. Their responses span the gamut, from literal summaries — ‘he leaps, runs the course, hurls the disk’ gets the title ‘the disk-thrower’ — to mythological glosses. Beside tetrad 344, ‘the winged Perseus rescues the maiden’, the unnamed maiden is identified in the margin as ‘Andromeda’.⁹⁸ Students who devoted long hours to the unforgiving task of learning the *Commentary* paid heed to the content of the tetrads they absorbed. Only a minority of tetrads attract titles; when taken together, they seem to provide an index of the tetrads secretaries found particularly interesting or provoking.⁹⁹

Judging by their interventions, students surveyed the *Commentary* like spectators at a festival, selecting salacious scenes and singling them out for special attention. Stenographers were especially drawn to annotating conjured sights of colourful cloth and smells of vibrant perfume.¹⁰⁰ They used annotations to categorise sexual crimes: tetrad 133, ‘The man, sodden with wine, violates the lovely girl’ carries the Latinised annotation ‘the corruptor’ (κορύπτωρ), while tetrad 137, ‘The homosexual jeers, the *cinaedus* “knows”’, earns the caption ‘the sodomiser’.¹⁰¹ Among other possibilities, the stenographers making these annotations might have been thinking about the world of the theatre; these character types and situations were commonly encountered in popular entertainments.¹⁰²

Marked-up tablets containing portions of the *Commentary* reveal students who paid particular attention to scenes of scandal and suffering. They signal their interest in lists of physical differences, for which they used titles to draw up their own taxonomies, glossing ‘bow-legged, lame, crippled, hunchback’ as ‘paralytic’, while ‘the squinter, the deaf one, the weak, the blind man’ are bracketed together as ‘glaucomic’.¹⁰³ Noticing and categorising other people’s physical vulnerabilities, ailments, and disabilities were central skills in the stenographer’s toolkit. Shorthand-writers involved in drafting and transcription would need to compose accurate physical descriptions, down to scars and birthmarks, to identify parties in contracts, petitions, and in other documentary settings.¹⁰⁴

Secretarial students were also interested in tetrads that seemed to be about their own profession, however tangential or tenuous the connection. Although secretarial professional terminology was not part of the *Commentary*’s lexicon, stenographical students eagerly put themselves back in. Tetrad 487 consists of a simple list of compound verbs with the same root: ‘he writes back, he inscribes, writes above/next to, rules a page, composes a work’ (ἀντιγράφει ἐγγράφει προ(σ)γράφει, δια/συγγράφει). Recognising the processes of their own work, secretarial students dubbed this tetrad

⁹⁸ 114: γαυριῶ τρέχει δρόμῳ δισκεύει; 344: παρθένον Περσεὺς πτηνὸς ῥύεται.

⁹⁹ The first 500 tetrads are better preserved than the latter portion of the *Commentary*: taking these as representative, 83 tetrads (or 16 per cent, roughly 1 in 6) have captions in papyrus witnesses and on wax tablets. But not all tetrads are equally represented in the later fragmentary papyri, and not all late antique fragmentary papyri show captioning activity, so the proportions inevitably shifted during Late Antiquity in ways we cannot see. Some appear in wax tablets while others show up in a fourth-century glossary (P.Monts.Roca.1) derived from the *Commentary*, perhaps indicating annotations which have become standardised within the system. The annotations that first appear on wax tablets are especially likely to reflect the original contributions of students. See McNamee 2007: 25: ‘Certain to be students’ texts are those on wooden tablets, which were standard equipment in schools’.

¹⁰⁰ Cloth: tetrad 266, καθεζόμενος γέρδιος ποικίλως ὑφαίνει, ‘the artisan sits while weaving intricate designs’ titled ‘the embroiderer’ — πλουμάριος, i.e. *plumarius*. Smells: tetrad 213, ἀλείφεται ἐπὶ κώμος οἰνόφυλξ μύρω, ‘a drunk reveller dabs on perfumed oil’ gets the title ‘the perfume-seller’ in both Latin and Greek (μυροπώλης and πιμεντάριος = ‘pigmentarius’).

¹⁰¹ 133: (κορύπτωρ) πάροιτος ὥραϊαν κόρην βιάζεται; 137: (μάλθακος) μάλακος σκόπτει οἶδεν κίναϊδος. See also 450 above, Section III.

¹⁰² Webb 2009. Tetrads 324–334 formed a theatrical section (324–329 describe Dionysiac cultic activities and 330–334 list titles of plays by Menander; see further Gronewald 1979b; and Torallas Tovar and Worp 2006: 186–7). For theatrical terminology in Latin shorthand manuals, see Dionisotti 2022: 36.

¹⁰³ 490: (παρालυτικός) σκαμβός χαλός λοξός κυρτός; 379: (παράστραβος) στραβός καφός πηρός τυφλός.

¹⁰⁴ Torallas Tovar and Worp 2006: 190–1; Papakostas et al. 2022.

with their own professional title: ὑπομνηματογράφος, a word which captures both the subordinate nature of their task and its critical relationship to memory and manual labour, but which in composite signals ‘stenographer’. Sometimes, self-identification took a more tangential turn. One of the more banal, generalising paraenetic tetrads, ‘practise self-control, stay sober always’, was given the somewhat self-referential caption σκρίνιον (*scrinium*, ‘the writing-desk/documentary archive’).¹⁰⁵

Not all secretaries took to the margins of their schoolbooks to record mythological glosses or to annotate proverbial pronouncements. Tetrad 64 provides a catalogue of objectionable behaviour: ‘He finds fault excessively, drags someone through the mud, issues insults’.¹⁰⁶ The description resonated strongly enough with one stenographical student that they wrote down the functionary it brought to mind: a sixth-century wax tablet preserves the word ρεγερενδάριος (a head scribe often put in charge of junior secretaries) scrawled next to this tetrad, memorialising a single, tiny act of resistance from a shorthand-writer in training.¹⁰⁷ This intervention might have had limited impact as a rebellion against the powers-that-were, but as a reader’s response to a tetrad it is fascinating. This student looked at a list of verbs, strung together in their basic third-person form, and saw a narrative, a description matching a real person.

This willingness to see a person behind a string of verbs, to conjure a narrative out of four loosely connected words, is perhaps the most important aspect of these captions. Stenographical students approached tetrads as carefully designed axioms with something meaningful to communicate. Accordingly, stenographical captions represent deliberate and authentic responses to the *Commentary*’s material. The problem is identifying the precise tone of that authentic response. These scraps of stenographical marginalia are tantalising; was the identification of the *scrinium* with scrupulous sobriety and moderation an act of approval or, like the naming and shaming of the *regerendarius*, a complaint about a stuffy and officiously run writing-room? Did the tone of a stenographic sign shift with the convictions of its user?

Such questions gain urgency when we try to discern the nuances and meanings of secretarial comments on the tetrads that promote subordinate silence. Sometimes, stenographical tastes seem all too clear: just recall tetrad 141, dubbed the ‘perfect one’ (ἀνενδεής), which seems to recognise subordinate silence before authorities as desirable. If novice *notarii* idealised those described as keeping their heads down and their tongues still, then they reacted equally strongly to the *Commentary*’s parade of negative examples. ‘The slanderer criticises, resents, eats away at himself’ meets with a fourth-century student’s mordant disapproval; σπερμολόγος (‘Gossip! Guttersnipe!’) is hissed from the margins of a wax tablet.¹⁰⁸ In the fifth century, a scenario seemingly describing the confusion of an apprehended fugitive slave (‘the escaped slave gawps, makes up excuses, dithers’) garners the slang expletive σχάστης, approximately translatable to ‘good-for-nothing runaway’.¹⁰⁹ The term is all but missing in elite Greek; its only incidence occurs in an episode recorded by the contemporary author Palladius, where it appears as part of a ferocious rant voiced by a demon; the word apparently registered very strong and quite vulgar disapproval.¹¹⁰

¹⁰⁵ 34: ἄσκει σωφροσύνην νῆφε διηλεκῶς. This caption survives on a tablet inscribed by the sixth-century stenographer, encountered above, who copied out the ‘disciplinary’ tetrads 31–40 over three separate wax tablets. For the Latinisms present in this tablet, see Menci 2001: esp. 289 (remarking that tetrad 34’s caption σκρίνιον ‘mi sembra del tutto estraneo’).

¹⁰⁶ 64: αἰτιάται πλεονέκτως προπηλακίζει ὑβρίζει. This tetrad is unusual in other ways: see Torallas Tovar and Worp 2006: 172.

¹⁰⁷ Vienna Wax Tablet 4, ed. Harrauer and Pintaudi 2002 (transcribed as ρεγερενταριος). On the duties of a sixth-century *regerendarius*, see Cassiod., *Var.* 6.17 with Teitler 1985: 63.

¹⁰⁸ 254: βάσκανος ψέγει φθονεῖ τρύχεται, with P.Vindob. G 15561.

¹⁰⁹ 215: δραπετής τέθηπεν προφασίζεται διστάζει, with P.Ant.4 + P.Ant.3.208.

¹¹⁰ Palladius, *Lausiaca History* 21.5: Σχάστα, φυγοκύρι, ἀλλότρια χρήματα ἐκλεψας ...

It is tempting to conclude from these annotations that stenographical students largely aligned themselves with the ideology promoted by the *Commentary*, which reflected prevailing elite ideas about the structure of power and the evaluation of othered peoples. But it should be remembered that we are at the mercy of extremely laconic evidence. Tetrads lack crucial meaning-generating connectives, articles and particles. They pulp and compress language down to its very core, stretching syntax to the point of being ungrammatical. After all, any system of abbreviation contains an element of open-endedness and so generates the potential for ambiguity and confusion. Milne first drew attention to this feature of the *Commentary* in 1934: 'the same sign might theoretically admit of various expansions, and to decipher shorthand without a clue to the meaning might baffle the most ingenious'. He concluded that such 'equivocation' could be regarded as 'the weakness of the system'.¹¹¹ While it is true, as seen from the foregoing discussion, that this did not always matter much to shorthand students, who happily constructed their own interpretations and commented on the scenarios they believed to be unfolding in individual tetrads, the open-endedness of our evidence does pose problems to modern analysis both of tetrads and of the one-word responses we find to them in secretarial copies.

Although secretarial annotations are richly informative on how individual students read tetrads as narratives, these captions can yield only limited, somewhat fragile insight into the collective values of their authors. After all, students could drill the *Commentary*'s overt messages about household power dynamics until they became instinct, but the handbook could not absolutely compel its readers to take its messages personally. With our awareness of the social niche generally occupied by secretaries, and as we stand distanced by expanses of time and space, it sometimes seems inevitable to us that stenographical students would have identified with the weaker, powerless party in tetrads discussing subordinate speech. But perhaps our picture of non-elite thought worlds would be enriched by leaving space for secretaries who imagined themselves as masters threatening their own slaves, or as a future emancipated trainer of shorthand writers, a διδάσκαλος who 'taught through rebukes'.¹¹² As the self-referentiality of the *regerendarius* tetrad reveals, secretaries had inserted themselves into more incongruous narratives.

In the final assessment, then, the *Commentary* served as an expressive space in which secretaries could modify, explain, extend and order snapshot-descriptions of late antique life in ways that appealed to them. In fact, it created that expressive space. For all the ways that the *Commentary* might have constrained and directed non-elite creativity, the handbook's own infelicities and inability to describe the changing circumstances of late antique life generated opportunities for *notarii* to go beyond its formal strictures and find meanings and connections that made sense to them.

V CONCLUSIONS

All in all, the *Commentary* may furnish incomplete evidence for its students' ideology, but it tells the truth about their reading habits. In the fragments of stenographical teaching materials that survive — most prominently the *Commentary* — we can search out the mechanics of one important form of non-elite pedagogy and observe its reliance on inculcating habits of associative thinking. Underneath this, we can begin to make out the *Commentary*'s 'hidden curriculum'. Deep memorisation of tetrads provided a moral

¹¹¹ Milne 1934: 5 (emphasis original).

¹¹² 37 and see above, Section III. For the relationship between *notarii* and *didaskaloi* in the documentary landscape, see Cribiore 1996: 163.

training which acclimated students to the social rules of the later Roman Empire and prepared them for the roles they would soon inhabit within it. The mechanisms of stenography were well designed to maximise the handbook's persuasive force; the content and arrangement of its tetrads promoted a strong and consistent set of messages about the structure of society and the role of subordinates within it. These messages were reinforced by the text's affective architecture and power to shape the internal landscape of the reader. But the *Commentary*'s ideological programme was still ultimately at the mercy of how its readers chose to use it.

Shorthand textbooks give us a new way to investigate the complexity and diversity of this small but important corner of non-elite intellectual culture. The picture that results is like one of the *Commentary*'s own tetrads; vibrant but ambiguous. The *Commentary* was both ideological prison, cutting deep grooves into the psychology of non-elite stenographers, and a zone of imagination, yielding opportunities for creative expression and spurring students to craft narratives out of unprepossessing wordlists. Our final image of the *Commentary*, therefore, is of a document that created a lasting epistemic disconnect between stenographers and the elite authors who towered over them.

When the fourth-century bishop Basil of Ancyra imagined shorthand signs 'etched' (καταγεγραμμένην) upon the stenographer's soul, he also acknowledged that, once imprinted, the shorthand signs became the proper, unique possession of their user: 'whoever has learned the stenographical art carries around with him all the shapes and referents of the signs, having impressed them in his soul'.¹¹³ Shorthand signs were portable and enduring; taught, learned, reinvented and owned, they knit together shorthand-writers under the banner of a shared education system, and set them apart from everyone else. Basil's words hint darkly at what shorthand was already becoming at the close of the fourth century: less an instrument for the words of aristocrats than a language in its own right, adapted to the expressive needs of its possessors. Beyond technical instruction, and even beyond moral education, the *Commentary* provided for its students an introduction to the tensions — between constraint and creativity, ownership and guardianship, loyalty and betrayal, knowledge and power — that lay at the heart of the stenographer's pedagogical and professional experience.

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¹¹³ Basil of Ancyra, *De Virginitate* 18: καὶ ὡς ὁ τὴν σημειογραφικὴν τέχνην μαθὼν, πάντων τῶν σημείων τὰ σχήματα καὶ τὰ ὀνόματα, ἀλλὰ καὶ τοὺς τύπους τῶν ὀκτάδων φέρει καὶ τετράδων ἐν τῇ ψυχῇ τυπωσάμενος.

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