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FRANCESCA COTUGNO*

-d / -t alternation in the Vindolanda corpus: insights from Octavius' letter[1]

Abstract

This paper deals with word-final alternation of -*d* / -*t* as it occurs in Tab.Vindol. 343, a letter written by the merchant Octavius (early 2nd century CE), as well as in other tablets of the Vindolanda corpus. While word-final -*d* occurs according to the morphological expectation in the large majority of the corpus, in Octavius' letter the scenario is different, insomuch that non-classical spellings predominate. In particular, we consider to what extent this phenomenon may be interpreted within a historical sociolinguistic context.

Keywords: Vindolanda writing tablets; (ortho-)graphic variation; Latin linguistics; historical sociolinguistics

Questo articolo considera l'alternanza tra -*d* / -*t* in fine di parola presente nella Tab. Vindol. 343, una lettera scritta dal mercante Octavius (2° secolo CE, prima metà) così come in altri documenti componenti il Corpus Vindolandense. Se la -*d* ricorre in gran parte del corpus, rispettando l'aspettativa dei criteri morfologici, nella lettera di Octavius in realtà il quadro è diverso in quanto predominano le forme non classiche. Per questo motivo si è ritenuto opportuno discutere le possibili interpretazioni di questo fenomeno all'interno di una prospettiva di ricerca glottologica.

Parole chiave: Tavolette di Vindolanda, variazione ortografica, linguistica latina, sociolinguistica storica

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1. Introduction. The Vindolanda corpus

The analysis of the mechanisms used by speakers to convey social and linguistic meaning – and therefore also useful hints on language variation – is not only focused on the study of vocal production but presupposes a historical sociolinguistic framework (Campoy and Conde-Silvestre 2012: 2). More specifically, the Vindolanda corpus allows one to argue that language variation and (ortho-)graphic[2] habits may be linked to the linguistic identity of the writers, even though their provenance is difficult to assess. This paper focuses on the relationship between the (ortho-)graphic behaviour and the cultural milieu of the writers, as these choices are often the only means for reconstructing language variation (Turchetta 2017).

In non-literary documents, features from spoken language often intrude into the written evidence. In this context, the Vindolanda corpus provides a wealth of evidence because it is one of the richest non-literary corpora written on tablet and collects evidence according to the diastratic and stylistic perspectives, realized by different hands with different writing habits. As a matter of fact, this corpus is composed of different text types which range from a formal to less formal production and the documents are written by different types of writers, some of them trained scribes and people with a very good command of Latin language, and other cases in which this competence was less polished. The letter by Octavius has been chosen for this article due to its length, its textual integrity, its textual typology (i.e. non-formal), and the presence of non-classical features[3].

Vindolanda was one of the forts guarding the supply road now known as

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[2] The form (ortho-)graphic refers both to the palaeographical perspective, which consider the distribution of the different graphic variants, and the variation of the set of conventions for writing Latin language.

[3] The label 'non-classical' refers to linguistic forms not compatible with the normative tradition of classical Latin (Marotta 2015: 39-40). Similarly, for classical spellings we use the definition given by De Felice, Donati and Marotta (2015: 123) saying that the classical forms are based on the Roman variety of Latin (Clackson and Horrocks 2007), first developed in texts written by a few authors of high repute and later transmitted by grammarians (Cuzzolin and Haverling 2009); however, standardization is not only a literary operation, but it is also developed in connection with (linguistic) politics and the process of codification of the right (Poccetti, Poli and Santini 1999). Once standardized, these forms of written Latin changed very little throughout antiquity and the Middle Ages.

the Stanegate, in Northumberland. The soldiers garrisoned there left behind a considerable number of tablets (776 in total, even though this number is increasing due to constant findings, see Bowman, Thomas and Tomlin 2019). These tablets were written between the 1st and 3rd centuries CE mainly by the Batavian and Tungrian auxiliaries and, to a minor extent, by their civilian accompaniment of women, children, slaves, and merchants. It should be noted that the garrisons in force at Vindolanda and other forts alongside the Stanegate were composed of non-Briton recruits who were supposed to serve for a lengthy period of up to twenty-five years in return for Roman citizenship. For this reason, the tablets are representative of the provincial non-literary Latin of the Rhine frontier and of the Gallia Belgica[4].

Although the bulk of these texts primarily consist of drafts, scraps and deliberately shredded documents, some complete texts have been preserved because they belonged to the archive of Cerialis, prefect of the 9th cohort of Batavians, or they simply survived by chance. All of them, when readable, represent relevant findings from both a historical and a linguistic point of view (Adams 1995). Many of the writers were somewhat careless with spelling and punctuation: everything depended on different variants such as text types and writers involved. Moreover, they tended to use non-classical spellings (e.g. the merger of /ē/ and /ĭ/, Tab.Vindol. 250, or vowel syncope, Tab.Vindol. 214).

In addition, the *Old Roman Cursive* writing adopted in the large majority of these tablets played an important role as a unifying asset for written communication, even if its (ortho-)graphic components were not enough to cover the complexity of the spoken language (Desbordes 1990). As a matter of fact, people from all the Roman provinces adopted variant spellings to write down a given spoken form. Moreover, it is known that at different times the Latin alphabet was perceived as unsatisfactory to render phonemes, which did not pertain to the Latin vocalism and consonantism (Green 1994: 47–48). In the documents collected in the Vindolanda corpus, as in other parts of the Roman Empire, the writers might have tried different spelling strategies in

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[4] The provenance of these recruits is certain because of the policy of not allowing soldiers to serve within their province of origin, as prompted after the Batavian revolt in 69 CE, together with the names labelling the different *auxilia* (Hassall 1970).

order to mirror their own phonetic habits. For example, it is known that (ortho-)graphic expedients were used to mark the palatal glide and the vowel length, as the *I longa* and the *apices*, with a very similar function in marking the vowel length (Cotugno 2015). Furthermore, some expedients were linked to the writer's own provenance, e.g. the unetymological use of word-initial *h-* in Germanic-wise onomastics and words pertaining to the everyday language and personal names (Cotugno 2020), or the use of spurious gemination (Cotugno and Marotta, 2017). Because these non-Roman writers did not have any other writing system except for the Roman alphabet, the difficulty in representing non-Latin sounds could have triggered spelling inconsistency in poorly-trained scribes or in writers whose level of literacy was not particularly refined (König and van der Auwera 1994: 90). However, phonetic reasons are not the only reasons behind spelling inconsistencies: writers adopted divergent spelling highlighting, on one hand, their own doubts on the correct spelling of a word and on the other hand their own writing habit as they learnt them.

1.1 Linguistic relevance

Although not all misspellings recorded mirror the actual pronunciation, divergences from the classical norm are important cues for sketching a linguistic and sociolinguistic profile along the different dimensions of language variation (Herman 2000; Adamik 2012).

As highlighted by Labov (1972: 274), language variation is a stepping- stone into sociolinguistic analysis even if there are critical constraints: there are no longer any speakers, the evidence is exclusively in written form, and the sociolinguistic cues available in these documents are often scarce and full of gaps. Notwithstanding, dealing with such 'bad data' – using Labov's terminology – is a key challenge for historical linguistic studies (Labov 1994: 11). In this way, applying notions and methods of sociolinguistics to these documents enables the discovery of new insights into Latin language (Marotta 2015: 40).

The collected data, despite relative scarcity from a quantitative point of view, reveal some interesting elements on many different levels: elements on phonological, lexical and (ortho-)graphic variation. However, due to their scattered nature, they do not supply evidence for reconstructing a complete sociolinguistic picture of Latin language, but they may shed some light on the

variety of Latin recorded in Roman Britain in the first centuries CE by taking into account different types of interference: between classical and non-classical Latin, between Latin on one hand, and Germanic and Celtic languages on the other, but also among different (ortho-)graphic habits. Specifically, this article aims to discuss the connection of Octavius' *-d / -t* alternation, a phenomenon also attested in other corpora from other areas of the Roman Empire (cf. the *chirographa* of C. Novius Eunus, among the documents on tablet, even though they were written on wax and in which *-d* and *-t* are not distinguished consistently, see also Adams 1990: 237). The phenomenon might be interpreted in different ways: on one hand, it can be interpreted as a grapho-phonological phenomenon which could be possibly linked to a local pronunciation and to the process of the *Auslautverhärtung* ('word-final hardening', see the discussion below, § 3 and 4). This is a feature eventually attested in later Germanic texts (cf. §4). On the other hand, the presence of *-d / -t* alternation may be interpreted as an idiolectal form, because the use of devoicing[5] in Tab.Vindol. 343 differs from other attestations of the phenomenon in the Vindolanda corpus, or it may represent the (ortho-)graphic habit learnt by Octavius and which differs from the other writers at Vindolanda. We should also take into account that the letter was sent *to* Vindolanda from Catterick (therefore we can infer that – maybe – Octavius did not belong to the same group even though he probably shared the same background, see **§2**) and more importantly that Octavius was a merchant and not a man from the auxiliaries garrisoned at the fort.

2. Octavius' letter: commentary, text and translation

Octavius' letter (Tab.Vindol. 343) was written by the homonymous entrepreneur to his fellow Candidus and it is one of the most extensive documents found at Vindolanda to date. Although we do not have much information about Octavius, it is possible to infer from this letter that both he and Candidus were involved in the supply of goods, at least at Vindolanda. The size of their business reached up to 5000 *modii* of cereal and hides (cf. §2.1.). Concerning the

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[5] In his writing, Octavius shows a peculiar tendency towards the alternation of final consonant *-d / -t.* This (ortho-)graphic alternation may reflect a phonetic devoicing in this specific context in the language variety of the writer.

location of Octavius' headquarters two suggestions can be made. First, Octavius was based at *Cataractonium*[6] (Catterick) at least at the moment when he wrote the letter, for he writes: *CorIa que scribIs esse CataractonIo scrIbe dentur mI et karrum de quo scribIs et **quit** sit cum eo karro mi scrIbe*. Second, both Candidus and Octavius were probably based at Vindolanda, but the latter had the role of itinerant entrepreneur. It is also possible that his fellow Candidus was the slave of Genialis (Tab.Vindol. 301), one of the prefects of the IX *cohors* of Batavians. Unfortunately, the evidence is too scanty to ascertain his identity, as the name Candidus is widely recorded on various inscriptions in the area of the Hadrian's Wall at that time and (Bowman and Thomas 1994: 322, cf. Tabb.Vindol.146; 148; 576, RIB 580, RIB 1632, RIB 1917). It is quite likely that Octavius' role was not so different from that of a *curator*, hence not so different from what happens at Mons Claudianus (*O. Claud.* II 367), where the *curator* Teres asks for supplies *rogo te domine: misi tibi per tabellarium* [...] *ut celerius mihi remittas omniam clavem bonam*, whereas Octavius asked *ita rogo quam prImum alIquIt (denariorum) mI mItte*.

However, there are many points of linguistic interest flavoured by non-classical misspellings, such as the use of monophthongisation (e.g. <que> for *quae,* <illec> for *illaec*, as already noted by Bowman and Thomas (1994: 321)), consonant gemination (*nissi* for *nisi*), or the syllabic reformulation from the heterosyllabic sequence of the hiatus into a tautosyllabic sequence, as highlighted by the usage of *I longa* (Cotugno 2015).

Moreover, it should be noted that Octavius was not particularly proficient in written Latin, at least not compared to the Latin written by the prefects and their scribes. He also wrote in haste, and this is proved by the offsets on the surfaces of the *tilia*[7], indicating that the ink was still wet when the tablet was folded (Bowman, Thomas and Adams 1990). This could indicate that he wrote using

[6] Concerning the area of the Roman fort of Catterick we can add a further link between the two forts given by the worship habit: there was evidence of altars of worship dedicated to *Veteris*, also present at Vindolanda and to the *Matres Domesticae* (RIB 3210), both of them related to the Celto-Germanic framework. Also, the use of *Domesticae* goes well with the idea of a faraway homeland (De Bernardo Stempel 2012: 134). However, one should also notice how the cult of the *Matres Domesticae* is particularly attested both at Bonn and in Britain (*CIL* XIII 8021, RIB 652, 2025, 2050, 3210, cf. Goodburn, Hassall and Tomlin 1979: 340).

[7] From the Latin word *tilia* "lime tree". This type of wooden leaf tablet would in most parts of the Empire have been made of lime wood (Bowman and Thomas 1983: 37).

features of the spoken language as he did not have much time to rephrase his words[8]. Nonetheless, he adopted colloquialism and displayed an accumulation of (ortho-)graphic variants, compared with both other personal letters and military documents (Adams 1995). Octavius' misspellings might be seen as reflexes of spoken language, and he may have had features such as word-final devoicing of obstruents, which also occurs also in modern languages including German and Dutch. His use of Latin shows different features of spoken language, such as the use of <quem> instead of *quam*, the use of paratactic sentences as typical of conversational language, the presence of standard contraction of *-ii-* into *-i-* except for *Ianuariis* (which is a formulaic form), and the frequent mono-phthongisation of *ae* in <e> in sharp contrast with the large majority of the Vindolanda corpus in which the diphthong *ae* is generally correctly preserved.

It is possible to infer that Octavius was no longer aware of the difference between features such as the monophthong *ae* and its counterpart *e*, but that he tried to write correctly, and this can be seen thanks to hypercorrect forms (e.g. <mae> for *me*). These forms can be interpreted as an indicator of (ortho-)graphic awareness as long as he wrote *arrae, quae, illaec* and *malae* as he heard them, with *e* instead of the diphthong *ae* (i.e. *arre, que, illec* and *male)*, and conversely he tried to compensate for the gap between spoken language and orthography by haphazardly inserting digraphs in the text. Moreover, the writing of word-final *-m* is maintained even though it is known that at that time its pronunciation was consistently fading or was no longer pronounced at all (Väänänen 1963: 66). As highlighted by Quintilian (*Inst. orat.* IX, 4, 40) and Velius Longus (*GL* VII, 54, 4), the pronunciation of word-final *-m* was feeble or completely absent even in educated speech. Nonetheless, although failing to articulate word-final /m/ was not a feature of a lower social status, failing to write final *-m* betrayed a lack of control over the spelling system (Adams 1995: 88).

Bowman, Thomas and Adams (1990: 48), as well as Adams (1995: 91), highlighted that the tendency to devoice word-final /d/ after voiceless consonants, alongside the tendency to voice /t/ after vowel and voiced consonant, was quite confusing for the scribes. Nonetheless, it is worth noticing that in Octavius' letter *quod* is always correctly written, whereas *quid* and *aliquid* show

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[8] However, it is noticeable the only case in which a word [[*exple*]] has been deleted.

final-consonant alternation, and this only occurs in this letter (cf. Tabb. 1, 2, e.g. <quit>). Conversely, in documents such as the *chirographa* written by Caius Novius Eunus, the target of this phenomenon which can be safely identified as a phenomenon of assimilation concerns mainly <quot> for *quod* (Adams 1990).
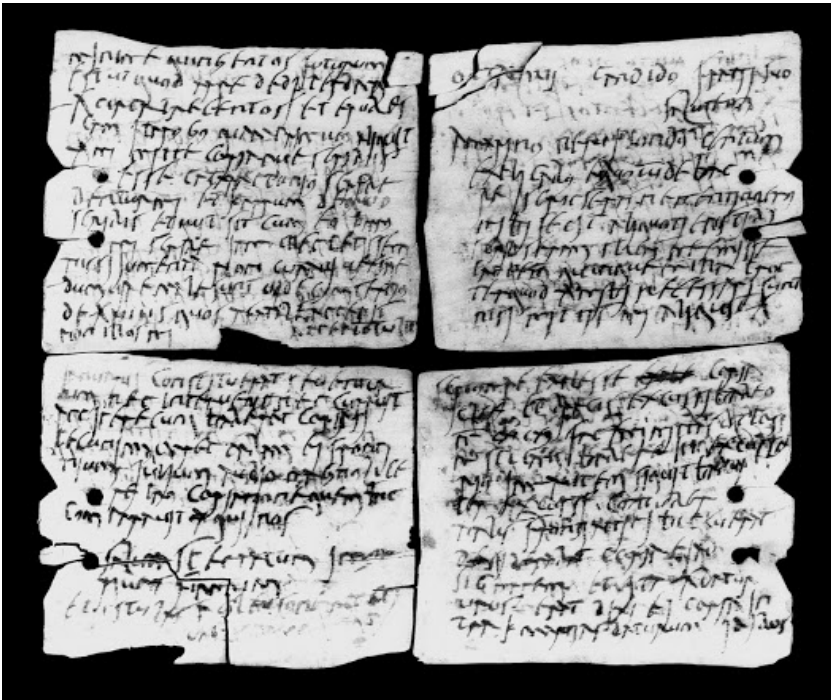
Figure 1. *Tab.Vindol. 343. © Trustees of the British Museum. Courtesy of the Centre for the Study of Ancient Documents and The Trustees of The British Museum.*

However, words like *aliquid* and *quid* oppose this kind of neutralization in order to avoid (ortho-)graphic /phonemic doublet with other words (Cavazza 1999). For this reason, the presence of word-final /d/ devoicing can be seen as a clue of a different level of diastratic and stylistic variation, because this phenomenon occurs in personal correspondence (e.g. Tabb.Vindol 248, 653; i.e. 77% of the occurrences in letters written by men, 11% of the occurrences in letters written by women,

and 11% in miscellaneous[9] texts), but never in official correspondence such request for leave, letters of recommendation, memoranda, and military reports.

2.1 The Text

For the sake of completeness, the text of the letter is reported below[10].

> *Octauius Candido fratrI suo*
> *salutem*
> *A MarIno neruI pondo centum*
> *explicabo e quo tu de hac*
> *re scripseras ne mentIonem*
> *mIhI fecIt aliquotIens tIbI*
> *scripseram spicas me emIsse*
> *prope m(odios) quinque milia prop-*
> *ter quod (denarii) mIhI necessarI sunt*
> *nisI mittIs mI **alIquit** (denariorum)*
>
> *mInime quingentos futurum*
> *est ut quod arre dedI perdam*
> *(denarios) circa trecentos et erubes-*
> *cam Ita rogo quam prImum **alIquIt***
> *(denariorum) mI mItte CorIa que scribIs*
> *esse CataractonIo scrIbe*
> *dentur mI et karrum de quo*
> *scribIs et **quit** sit cum eo karro*
> *mi scrIbe Iam illec petIssem*
> *nissI Iumenta non curauI uexsare*
> *dum uIae male sunt uide cum Tertio*
> *de (denariis) viii s(emisse) quos a Fatale accepit*
> *non illos mI [...] accepto tulit*
>
> *scIto mae explesse [[exple]] corIa*
> *clxx et acis excussI habeo m(odios) cxix*

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[9] This type of document contains those texts whose text type cannot be ascertained.

[10] The transcribed text is also available on the website https://romaninscriptionsofbritain.org/. The transcription presented here is slightly differs from the one by Bowman and Thomas, available at https://romaninscriptionsofbritain.org/, and is based on the sociolinguistic database CLaSSES http://classes-latin-linguistics.fileli.unipi.it/en.

fac (denarios) mI mIttas ut possI-
m spicam habere in excusso
rIo iam autem si **quIt** *habuI*
perexcussI contuber-
nalis FrontI amIcI hic fuerat
desIderabat corIa eI ad-
signarem et ita (denarios) datur-
urus erat dIxI eI corIa in-
tra K(alendas) MartIas daturum IdIbus

ianuariis constituerat se uentur-
um nec interuenit nec curauIt
accipere cum haberet corIa sI
pecunIam daret dabam eI FrontI-
nIum Iulium audIo magno lice-
re pro coriatIone quem hic
comparauIt (denarios) quInos
Saluta Spectatum I...-
rium Firmum
epistulas a Gleucone accepI
uale

Vindol(anda)[11]

---

[11] Translation from Bowman and Thomas (1994: 324), further integrated by *addenda* and *corrigenda* in the successive edition (Bowman and Thomas 2003: 159). "Octavius to his brother Candidus, greetings. The hundred pounds of sinew from Marinus - I will settle up. From the time when you wrote about this matter, he has not even mentioned it to me. I have several times written to you that I have bought about five thousand *modii* of ears of grain, on account of which I need cash. Unless you send me **some** cash, at least five hundred *denarii*, the result will be that I shall lose what I have laid out as a deposit, about three hundred *denarii*, and I shall be embarrassed. So, I ask you, send me **some** cash as soon as possible. The hides which you write are at *Cataractonium* - write that they be given to me and the wagon about which you write. And write to me **what** is with that wagon. I would have already been to collect them except that I did not care to injure the animals while the roads are bad. See with Tertius about the 8½ *denarii* which he received from Fatalis. He has not credited them to my account. Know that I have completed the 170 hides and I have 119 *modii* of threshed *bracis*. Make sure that you send me cash so that I may have ears of grain on the threshing-floor. Moreover, I have already finished threshing all **that** I had. A messmate of our friend Frontius has been here. He was wanting me to allocate (?) him hides and that being so, was ready to give cash. I told him I would give him the hides by 1 March. He decided that he would come on 13 January. He did not turn up nor did he take any trouble to obtain them since he had hides. If he

2.2 Data analysis

Quintilian was already aware that Latin spoken as a second language was somehow flavoured by the first language features, labelled as 'indescribable sounds'[12]. Concerning the phenomenon under discussion here, Quintilian was not particularly prescriptive, because it was a common misspelling in non-literary documents caused by a careless spelling in non-educated speech (Adams 2013: 158-159; Quint., *Inst. orat.* I, 7, 5). Moreover, as Colson (1924: 93) and Adams (2013: 158) remarked, shows an unparalleled indifference towards keeping a distinction between *at* (conjunction) and *ad* (preposition). This has been interpreted as a clue of the assimilation – even in educated speech – of the final consonant. However, one should also notice how final devoicing does not target only *ad* and occurs in context in which consonant assimilation appears difficult.

Within the Vindolanda corpus, there are different misspellings which may be interpreted as indicating phonological phenomena, linked to stylistic and diastratic variation. Here, there are 13 clusters of final dental *-d* written as *-t*, unevenly distributed between nine different writing tablets (cf. Table 1).

Non-classical form	Tokens	%
<aliquit>	2	15%
<at>	2	15%
<it>	1	8%
<quit>	2	15%
<quot>	1	8%
<set>	5	39%
Total	13	100%

Table 1. *Non-classical forms in the Vindolanda corpus concerning -d / -t alternation.*

had given the cash, I would have given him them. I hear that Frontinus Iulius has for sale at a high price for leather- making (the things) which he bought here for 5 denarii apiece. Greet Spectatus and I... and Firmus. I have received letters from Gleuco. Farewell. (Deliver) at Vindolanda."

[12] Cf. Quint. (*Inst. orat.* I, 5, 33): *sunt* [...] *proprii quidam et inenarrabiles soni, quibus nonnumquam nationes deprehendimus* (trans. "are [...] certain special, indescribable sounds, by which we sometimes recognize particular nations").

All these forms occur in personal correspondence. Only for Tab.Vindol. 701 it is not possible to ascertain the exact textual typology, and it has been marked as *miscellaneous.* As highlighted in Table 1, the clusters involved are mainly in monosyllabic words. In particular, the preposition *ad* in *at te* has been found twice in Tab.Vindol. 292, whereas Tab.Vindol. 248 has both *it* and *quot*, and Octavius' letter (Tab.Vindol. 343) has four different tokens, as both *quit* and *aliquit* occur twice, with the largest share of the occurrences available in this corpus. Moreover, it should be noted that among the Vindolanda tablets there is no evidence for the opposite phenomenon (i.e., voicing of dental consonants in final position). Also, in the *RIB* there is no evidence of devoiced final consonant which would help in this analysis.

Taking into account the case of Octavius' letter, let us compare the non-classical and classical occurrences available in the whole Vindolanda corpus with the non-classical tokens found in the letter.

Word	Classical	Non-classical		Octavius' Letter
aliquid	4	2	$\rightarrow$	2
quid	21	2		2

Table 2. *Classical and non-classical occurrences compared with the letter of Octavius.*

As pointed out by Adams (1995: 91; 2013: 161), although in the Vindolanda corpus there are tablets with a high degree of formal accuracy, there are also tablets, like Octavius' letter, marked by non-classical usage. In these tablets, deviations from the classical norm are remarkable. Moreover, these deviations witness some developments in first-century speech and orthography, such as word-final devoicing of /d/ (cf. Table 2). In relation to the word *aliquid*, there are six different attestations in the Vindolanda corpus, four of which are classical, and two non-classical. The latter ones occur in Octavius' letter. The case for the word *quid* is quite similar: 23 different occurrences in the Vindolanda corpus, of which only two non-classical forms belong to Octavius' letter (cf. Table 2).

It is complicated to identify the causes of this phenomenon in the Vindolanda corpus. First, data analysis shows that word-final devoicing of /d/ is not so readily related to phonological environment. In fact, according to the sonority scale, it occurs twice after a symbol (*denariorum*); twice before a

labiovelar; in four cases before a mid-vowel; in three cases before a voiceless plosive; once before a voiceless fricative and after a nasal. Therefore, it is not possible to interpret this phenomenon as a tendency for final consonant's anticipatory voice assimilation. More importantly, in the case of Octavius' letter, the phonetic context is not indicative, because the devoicing occurs before a symbol (twice), an aspirate – if ever pronounced, and a voiceless fricative. What is important to note is that, with regard to the spelling of (*ali*) *quid,* all non-classical forms appear in this document.

In cases like <at te>, this might be interpreted as an assimilation phenomenon (Tab.Vindol. 292). However, such an explanation is not necessarily plausible for Octavius' letter as there is *-d / -t* alternation also in other contexts, such as *alīquit* (*denariorum*) or *quit sit*. Concerning cases like *alīquit* (*denariorum*) the assimilation is unlikely since the second element is a symbol (X̶), and it has an ideographic consistence, detached from any particular language and specific words. Concerning cases like *quid sit* written as <quit sit>, a different outcome should have been expected, in the same vein of *ad sumere* > *assumere*. (Ortho-)graphic misspelling may be taken into consideration, but the contrast between <(ali)quit> vs. *quod* is revealing. The author of the letter seems to have followed a parallel pattern of monophthongisation, writing as he spoke, at least in these cases. The difference between *aliquit* and *quod* may be explained by the fact that there is not a direct lexical competitor for (*ali*) *quit.* It seems likely that Octavius was aware of the ambiguity between *quod* <quot> and the indefinite adjective *quot.* However, <quot> for *quod* is very common in inscriptions (e.g. CIL III, 1041; VI, 10246; VI, 10322; XIV, 1357, see also Carnoy 1906: 175, Adams 1990: 237[13]).

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[13] Carnoy (1906) consider these variants not important from the phonetic point of view as they occur quite often in official epigraphic inscriptions and it appears more often than in vulgar inscriptions, indicating that this kind of alternation was more a matter of spelling and that it is very doubtful that a Roman distinguished between *-d* from *-t*. Apart from the anachronistic remark from Carnoy, which lumped together different types of 'Romanness' without considering the influence of other languages and identities but the Latin language, Adams (1990) remarked as well that forms like <quot> are common in epigraphic documents and that there is some confusion between final *-t* and *-d* in monosyllables like <quot> and <set> in the *chiro-grapha* written by Eunus. In both cases, one should notice that the letter from Octavius is not a formal epigraphic text nor is related to the legal transactions like Eunus' *chirographa*. In the case of Tab.

Besides his (ortho-)graphic awareness (also shown by the fact that he correctly wrote word-final *-m*), Octavius used a form suggesting hypercorrection, i.e. the spurious gemination of *-s-* in *nisi* (*nissi*) and *uexare* (*uexsare*) (Cotugno and Marotta 2017). However, interpreting <(ali)quit> as a hypercorrected form may not be entirely satisfactory, because the dental consonant is correctly used in final position in *quod* and also we do not have truly hypercorrected forms like <fecid> instead of *fecit.* Finally, other possibilities have to be explored in order to shed light on Octavius' alternate use of this (ortho-)graphic feature.

Taking into account other corpora, it is noticeable that there are no other cases of *-d* / *-t* alternation in final position. In the *Londinium*-Bloomberg tablets, there is only one case in Tab.Lond. 29 (*...a[d D]iadumenum **seṭ ille** superuenit unum diem*). This is one of the most complete and readable tablets from this corpus and it is actually full of non-classical misspellings and *lapsus calami.* The writer misspelled (and amended) his name *Taurinus,* there are other non-classical forms like the spurious gemination of <s> (i.e. *occassionem*), *-m* deletion (*salute* for *salutem*), other cases of deletion like *aduxerat* for *abduxerat* and *copedia* for *compendia* which appear as possible phonetic spellings in which the consonant cluster has been assimilated or simplified. It is difficult to assess whether these few cases represent an actual devoicing of plosives or some sort of fortition which manifested in a spelling mistake as <d> ➔ <t> without actually corresponding to a case of devoicing.

3. Final Devoicing and *Auslautverhärtung*

Neither the texts of the Vindolanda corpus, nor other non-literary texts from Roman Britain (i.e. Londinium-Bloomberg writing tablets and Carlisle writing tablets, Tomlin 1998; Tomlin 2016), were written by people coming from the insular milieu (cf. §1). Moreover, whether the authors of the texts were auxiliaries, civilians, or trained scribes, they all came from a continental province. As far as the evidence indicates, they were writers belonging to a Celto-Germanic milieu.[14] By linking the writer of Tab.Vindol. 343 to this milieu, we may attempt to

Vindol. 343 the text is a case of non-formal document, written on a specific writing material which is not a wax tablet nor a hard material like stone or marble.

[14] This is particularly evident not only from onomastics and theonyms – which alone represent an interesting clue but may not be considered enough – but also by linguistic features

analyse -d / -t alternation according to a diachronic perspective and consider its presence as a case of final devoicing, referring to the possible opposition between tense and lax pronunciation[15]. The German term *Auslautverhärtung* 'word-final hardening' in this sense would be somewhat more adequate than final devoicing because it refers to the neutralization of the opposition between tense and lax obstruents in final position. This phenomenon occurs in languages belonging to the West Germanic[16] group such as German and Dutch, and it affects plosives and fricatives (Brockhaus 1995: 6; Jessen 1999: 157).

The origin of *Auslautverhärtung* within the West Germanic languages is not entirely clear.[17] However, the discovery of runic inscriptions from the

which lean towards the Celto-Germanic milieu, such as the presence of the <h> insertion in initial position, but also by other features such as the consistent presence of the diminutive suffix -*ulus* which account for more than twenty occurrences, also in words of unprecedented attestation, such as *brittunculi* (Tab.Vindol. 166, see also Adams 2003a, 567). It has been assumed that this suffix can be considered as a case of a positive transfer from the Germanic linguistic milieu since there is a similar form also in reconstructed for Proto-Germanic dialects and prolific in Germanic personal names and everyday words (Looijenga 1997: 62). Moreover, and this is probably the most consistent evidence available, the bulk of the documents available belongs to the 9th cohort of Batavian and the 4th cohort of Tungrians. Even though there cannot be an absolute certainty concerning the writers' provenance, whether Batavian or Tungrian, the epigraphic and archaeological data show that the Batavians continued to recruit heavily in their native area for the first two centuries CE (Mattingly 2007: 168–169).

[15] The labels of tense and lax mark a binary phonological opposition in distinctive feature analysis, based on acoustically analysed and spectrally defined acoustic and articulatory criteria. On one hand, their acoustic characteristics consist of a definite delineation of the resonance chambers on the spectrum with a greater or a lesser energy expenditure in frequency and time. On the other hand, the articulatory characteristic consists of a greater or a lesser muscle tension and in a correspondingly different degree of distortion of the vocal tract from its resting position (Bußmann 2006).

[16] West Germanic represents the largest of the three branches of the Germanic language family, and consists of languages including Old English, Old High German, Old Saxon for what concerns ancient languages (Harbert 2006: 15).

[17] One should also notice how in standard German it is actually available a situation of final consonant devoicing which shows such spellings – at least occasionally – from in the 8th century CE but, later on, we see that final devoicing disappear in the Early modern period only to reappear in the modern German but not in all varieties of German. Salmon tried to explain this with the presence of the schwa apocope that introduced a laryngeal contrast in cases like ta[g] – ta[k]. In any case, the scattered presence of this phenomenon in the modern period, show how, across

early 5th century (Bergakker and Rasquert inscriptions, found in the region once inhabited by the Batavians, cf. Mees 2002) suggests that this phenomenon originated in this area. Specifically, the inscription from Bergakker (425 Gelderland – Netherlands) displays runes from older *fuþark* and is the oldest runic found in the Netherlands. The inscription has been transcribed and interpreted as follows: transcribed and interpreted the inscription as follows: **Haþuþȳwas ann kusjam lōguns**. "[Property] of Haþuþȳw's. I/He grant/ grants a flame [=brand, sword] to the chosen" (see Looijenga 1997, 1999, 2022; Mees 2002). The inscription shows an apparent devoiced -*z in **lōguns**.[18]

The inscription of Rasquert (Groningen, late 8th century) was made on a whalebone handle. A possible reading is **ek u[n] mædit oka.**[19] "I, Oka, not (made) mad" might have been Oka's device according to Looijenga's interpretation. The adjective participle preterite **mædit** of **mædan* (OE *mæded* 'mad'; Gmc. **mæðjan* > OE **mædan*, Looijenga 2003: 317) seems to show word-final consonant devoicing at least on the (ortho-)graphic level.

The phenomenon of word-final consonant devoicing is quite common and occurs very often through the diachronic and synchronic dimension. It does, however, not necessarily have the same origin. Therefore, final consonant devoicing, not to be understood as a mere orthographic phenomenon, may be interpreted as an instance of 'linguistic karstification' applied to the history of Latin (Marotta 2015: 51). The attestation of a linguistic phenomenon may appear and disappear, whereas its real use never disappears[20] (as happens in the case of a subterranean river which digs its path and never

the German dialects not all of them show this specific phenomenon (Salmon 2012: 189-190).

[18] One should also notice a different reading given by Looijenga (2020: 859): **haleþewas: ann: kesjam: logens.** Looijenga (1999) attempted as well different interpretation, working with different hypothesis like the presence of Latin influence or an incorrect use of the rune <þ>.

[19] *Ek* has been interpreted as **1**sg pers. pron. 'I'. *u[n] mædit* adj. part. pret. of **mædan* 'not-mad'(?) < PGerm. **maiðið-*, supposedly from a PGerm. verb **maiðjan* 'to make mad' (see Looijenga 2002). Kroonen (2013: 347-348) records PGerm. **maidjan*, 'to damage, hurt', ON *meiða* 'to hurt; to damage, destroy'. However, *gemæded* is attested in OE and it is also related to Gothic *gamaiþs* 'weak, frail' (Versloot 2014). **Oka** has been considered a personal name of Frisian origin (Versloot 2014: 49).

[20] One should notice that this idea may be perceived as particularly strong as, on the level of linguistic behaviour, the presence or absence of linguistic uses or features may depend on the choices of the single writer.

stops its flow).

However, as Octavius is the only writer from the Vindolanda corpus who uses non-classical variants for *quid* and *aliquid* (cf. Table 2), it is possible to assume that these non-classical forms may be taken as idiolectal: the writer may have adopted an (ortho-)graphic solution to signal his idiolectal pronunciation or that this feature was common in the place from which he was writing. It is not the first time in which (ortho-)graphic devices have been adopted to overcome the difficulties caused by adapting the phonetic requirements of another language. The failure of the Latin alphabet to meet the needs of other phonetic systems concerned the Germanic languages at different times, as in the case of the reform of the Frankish alphabet introduced by Chilperic[21], who added four graphemes to the Latin alphabet (Battaglia 2013: 217), or the use of the rune **þ** in different Latin inscriptions from Norway and Sweden (12th century) in order to represent [th][22]. Similarly, in relation to the Celtic milieu, it is known that writers with this background were prone to use different (ortho-)graphic devices – double barred *d* <ÐÐ>, single barred *d* <Ð>, a single *theta* <θ> or a double *theta* <θθ> – to represent a kind of dental fricative[23], as the Latin alphabet did not have a grapheme for this type of sound.

There is not enough evidence to assess whether the writer of the Tab.Vindol. 343 was influenced by a Germanic language. As a matter of fact, there is no direct evidence to direct his misspelled final consonants to the West Germanic *Auslautverhärtung.* Nonetheless, Octavius is the only writer among the non-literary corpora in Roman Britain who spelled the form (*ali*)*quid* wrongly. It is therefore possible to hypothesize that (*ali*)*quit* was an idiolectal form or that Octavius was not aware that (*ali*)*quid* was supposed to be pronounced with the final voiced dental, in the very same way as he did for the diphthongs *ae* (cf. §3). Nonetheless, it is also possible to consider these devoiced

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[21] The Merovingian king Chilperic I (535-584). His orthographic reform is known thanks to Gregory of Tours (*Hist.* 5.4.4.) who reports that he proposed the use of four different graphemes – namely ω, æ, *the*, *wi* – in order to render the names of the Frankish elite (Conti, Da Rold and Shaw 2015: 114).

[22] For further reference, cf. Baur 2011 and Knirk 1988.

[23] For a review of the possible pronunciation of this grapheme, cf. Eska 1998.

forms not on the phonetical level, but as forms grounded on the orthograph-
ical levels. In other parts of the text, Octavius shows an orthographic aware-
ness, and it is possible that his use of <t> instead of <d> was linked to the
imitation of other types of documents (such as the *t-* / *d-* alternation available
in the *chirographa* written by Eunus 16, 3, 6, *quot est*, 18, 2, 15, *quotsi* or 18, 3,
2 *set etiam* or in inscriptions like *CIL* III, 1041; VI 10246, VI 10322, XIV 1357,
as Eunus in more than one occasion follows features linked to legalistic and
financial documents, see Adams 1990), or that he was following the (ortho-)
graphic habit he learnt. Compared to the other non-literary documents from
Roman Britain, the Vindolanda corpus and Octavius' non-classical spellings
go slightly against the grain.

4. Discussion and conclusions

Non-literary texts like Octavius' letter may mirror the language used by
lower-class speakers. However, in this specific case, it is hard to believe that
this kind of misspelling may reflect the exact pronunciation adopted by the
writer. Despite the huge amount of data available they are not enough to
yet answer to this question. At the same time, it is undeniable that spellings
not congruent with the standard norm of the language might become rele-
vant cues for reconstructing sociolinguistic variation in the ancient world, in
particular with reference to the stylistic and diastratic dimensions (Marotta
2015: 43). Analysing these features could lead to a better understanding of
linguistic variation in the narrow context of Vindolanda and in wider frame-
works, comparing these data with other corpora from Britain and elsewhere.

   Broadening the scope of our investigation on this phenomenon, *-d* / *-t* al-
ternation does not occur very often in non-literary texts from Roman Britain
and from Vindonissa. In particular, we should stress that this phenomenon
is not particularly evident in the Romano-British curse tablets, it occurs only
once in Tab.Lond. 29 – a financial documents from Londinium – wrote <set>
for *sed.* It should be stressed that compared to Octavius' letter there is a dif-
ferent degree of formality, a different topic, and a different writing material
adopted (a stylus tablet instead of ink-written tablets). However, final conso-
nant devoicing occurs at different times and in different types of documents
elsewhere in the Roman Empire (Grandgent 1907: 119 and also 121; 1940: 75;

Väänänen 1963: 70). One can cite the graffiti from Pompeii, in which there are many cases of final consonant alternation between /d/ and /t/ (e.g. CIL IV, 1880 *at quem,* CIL IV, 2013 *at portam*). The issue in Octavius' letter does not consist of the mere devoicing of the final consonant, but involves the binary contrast between the form (*ali*)*quit* and the form *quod,* as the second has a lexical competitor in the indefinite adjective *quot.* However, the Vindolanda corpus only shows the change towards the devoiced segment, whereas other writings such as the Pompeian graffiti show this variation in both directions (e.g. CIL IV, 2400 *set intra*; CIL IV, 2388 *rogad*). Moreover, a similar situation of the variation going in both directions has been noticed by Gonda (2020: 64), who found that the ratio of "sonorization is higher than that of desonorization" but nonetheless, for Alps–Danube–Adria region, Venetia et Histria, Raetia, Noricum, Pannonia Inferior, Pannonia Superior, and Dalmatia, the phenomenon occurs both ways. Together with a scarce number of records of word-final consonant devoicing from the Roman Britain it is possible to speculate that, at least at the epigraphic level, this feature well-attested on the continent was not common in Britain.

As already pointed out by Adams (1995: 91), the Vindolanda writing-tablets have "a high degree of accuracy in the spelling of such forms", especially if compared with other non-literary corpora (e.g. the graffiti of Pompeii, the letters by Claudius Terentianus, and the ostraka of Bu-Njem). Such correctness, however, does not allow one to build a fine-grained profile of the Latin variety in use for this period and area; rather, it helps in setting a profile of these few variations in their specific non-formal framework. A misspelling coming from a well-trained environment has more weight with respect to texts in which the disconnection from the classical norm does not allow us to distinguish *lapsus calami* from language change.

Moreover, the phonological environment does not play a role in triggering this phenomenon. One can notice this behaviour of the dental stop in various phonological environments (two occurrences before a symbol, two before a labiovelar, four before a mid-vowel, three before a voiceless plosive, one before a voiceless fricative, and one after a nasal, cf. § 3). For this reason, the variation is apparently independent of context and it is not possible to interpret this data as a mere case of assimilation (Väänänen 1963: 72). Such an explanation is sup-

ported by the case of *ad te*, found twice in Tab.Vindol. 242, in which there are two contiguous homorganic stops diverging only for the feature [+ voiced], but the qualitative analysis of the letter of Octavius showed a different situation.

As far as Octavius and his letters are concerned, it is hard to establish whether it is actually phonetic writing or if he was following his own orthographic habit, or the orthographic habit he learnt somewhere. What strikes the imagination is his vivid and living language, consisting of colloquial idioms, together with the presence of various grapho-phonological features, such as the *I longa* – with the double role of signalling the vowel length and the palatal glide (Cotugno 2015) – monophthongiza-tions alongside features like final devoicing which may possibly preconize *Auslautverhärtung*, although the lack of data pushes us back towards careful consideration.

In our considerations, *Auslautverhärtung* did not replace word-final consonant devoicing because it is only possible to guess that Octavius had a tense pronunciation of the final dental. Phonological phenomena ascribable to a Germanic milieu are not isolated in the northern *limes* of Britain: there are instances of *h-* insertion in initial position targeting personal names of Germanic origin and words pertaining to everyday language[24] (Cotugno 2020); the presence of geminated consonants contrasting with the tendency of degeminated words typical of Celtic-influenced corpora (Cotugno and Marotta 2017).[25]

Octavius was not one of the most proficient writers in Roman Britain. Nonetheless, he seems self-conscious of specific orthographical conventions which differed from the spoken language (i.e. the diphthong *ae* no longer pronounced). For this reason, it is possible that he hypercorrected non-etymological diphthongs (cf. §2); nonetheless, in this letter there are features ascribable to spoken language. The spelling of (*ali*)*quit* can thus be seen as a feature of spoken language, whereas the correct spelling of *quod* may be due to the existence of *quot* in Octavius' lexical repertoire. Because (*ali*)*quid*

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[24] Insertion of initial *h-,* in words belonging to the everyday language and in names of Germanic origins, such as *Hrindens* (Tab.Vindol. 885) and *Hrindenus* (RIB III, 3331), as well as the name of the god *Veteris* (RIB 1602 *Hueteri*, RIB 3335 *Huitiri*).

[25] Romano-British curse tablets show a higher number of occurrences of degeminated consonants, which targets multiple areas of the lexicon, namely onomastics (e.g. Uley 33, *Lucila* for *Lucilla*), numerals (e.g. Uley 50, *quator* for *quattuor*), and everyday words (e.g. Tab.Sul. 97, *anilum* for *anellum*).

occurs in the non-classical form only in Octavius' letter, it seems that it is not-typical form of the larger community of Vindolanda's writers.

At the moment, there is not enough data to prove a strong link between Octavius' devoicing and the *Auslautverhärtung*; but this suggestion still remains an enthralling possibility, although it is important to highlight the existence of the *d- / -t* alternation within this corpus. If this link is proved by further research, it will allow the reconstruction of the accent in the voices of some settlers living at the northern *limes* in Britain in the first centuries of the Christian Era. Nonetheless, what we can notice at the moment is the existence of different layers and types of (ortho-)graphic habits and awareness, available in one single multifaceted corpus, composed of different types of hands and writing expertise, not only of different levels of command of Latin language.

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