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# SOME PRELIMINARY REMARKS CONCERNING SOCIO-LINGUISTIC VARIATION WITHIN THE "VULGAR" LATIN VOWEL SYSTEM: AS EVIDENCED BY THE INSCRIPTIONAL DATA<sup>1</sup>

## BY ALESSANDRO PAPINI

Abstract: This paper aims to investigate whether a statistical analysis of linguistic data in inscriptions may serve for the study of sociolinguistic variation within the Latin Language. In particular, this study focuses on the quantitative vs. qualitative phonemic opposition within the vowel system of the so-called "Vulgar" Latin. In order to do so, we will study the relative frequency of the <ae>/<ē> and <ae>/<ē> graphemic oscillations in three different corpora of both synchronic and syntopic - but diaphasically and diastratically different - inscriptions from the city of Rome (cf. Mancini 2014). All the inscriptions considered in this sample date back from ca. 50 AD to ca. 250 AD (the last date referring to the "end" of so-called Classical Latin according to Adamik 2015). Our results may point to the existence of a "disturbance" within the quantitative-based vowel system of Classical Latin, at least as far as some sub-standard varieties of the language are concerned.

Keywords: "Vulgar" Latin; <ae>/<e> graphemic oscillation; Latin inscriptions

### **1.1. Framing the problem**

Since the Republican age, the grapheme  $\langle e \rangle$  has often been used in epigraphic corpora from outside Rome to render the Classical Latin (henceforward CL) /ae/ diphthong, along with the corresponding inverse spelling, viz.  $\langle ae \rangle$  for the CL long /ē/.<sup>2</sup>

These *e*-spellings are due to the fact that, at least in some dialectal varieties of Latin spoken outside Rome (see below), the CL /ae/ diphthong had monophthongized to a both long and open  $/\epsilon$ :/ as early as the mid-2<sup>nd</sup> cent. BC.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> I would like to thank Professor B. Adamik and Professor C. Ciancaglini for reading a preliminary version of this paper. Every mistake it may contain is, of course, ascribable to myself.

 $<sup>^{2}</sup>$  According to the survey in Adams 2007, 82-7, these *e*-spellings particularly concern inscriptions from Tusculum, Praeneste, the *ager Gallicus*, Umbria and the territory of the Marsi. See also Adams 2013, 72 and Coleman 1971, 183.

<sup>&</sup>lt;sup>3</sup> Even if forms like <cedito> and <cedre> (for *caedito* and *caedere*) are attested even in the *Lex sacra* from Spoletium (*CIL* I<sup>2</sup> 366) as early as the mid-3<sup>rd</sup> cent. BC (see Adams 2007, 85; Wachter 1987, 428-32), it seems likely that "standard" Latin underwent this change only from

Whether in this same period [ $\epsilon$ :] for /ae/ was already a feature of some diaphasically (and diastratically) low sociolects spoken in Rome remains uncertain. The «absence of clear-cut *e*-spellings in the early Roman inscriptions»<sup>4</sup> along with literary *testimonia* describing this pronunciation as "rustic",<sup>5</sup> may suggest that it was «primarily a regionalism» by this time, «and only later a sociolectal feature».<sup>6</sup>

The situation radically changes during the early Empire: several *e*- (and *ae*-) spellings are also found by this period even in inscriptional evidence from Rome, while  $\langle e \rangle$  for /ae/ happens to be the customary spelling also in epigraphic and non-literary *corpora* from the Empire.<sup>7</sup> It may thus be assumed that, by this date, the monophthongization had become common even in Rome, at least «at the so-cial and educational levels represented in the...corpora from outside the city».<sup>8</sup> Conversely, it is likely that the original pronunciation survived over a longer period in careful and educated speech.

Testimony of the fact that the monophthongization of the CL /ae/ diphthong resulted in a long and open vowel (viz. more open than the inherited CL long  $\langle \bar{e} \rangle$ ) is borne by several passages in Latin grammarians. To give just some examples, Servius (around 400 AD) informs us that the pronunciation of the CL short  $\langle \bar{e} \rangle$  (which was realized as [ $\epsilon$ ]) sounded similar to what he calls the *sonum diphthongi* (viz. to  $\langle \epsilon : / < / ae \rangle$ ).<sup>9</sup>

<sup>«</sup>the second decade of the 2<sup>nd</sup> century BC» (Coleman 1971, 183). The inherited /ai/ diphthong was reduced to  $\epsilon$ :/ also in Umbrian (see Weiss 2009, 100; Adams 2013, 71). Thus, it is not impossible that *e*-spellings like those quoted above might be due to external influence (Ciancaglini, Keidan 2018, vol. 2, 263).

<sup>&</sup>lt;sup>4</sup> Adams 2007, 87.

<sup>&</sup>lt;sup>5</sup> See, for instance, Lucilius laughing at the *praetor urbanus* (ca.102 BC.) C. Cecilius Metellus *Caprarius* (from Praeneste): *Cecilius pretor ne rusticus fiat* (Lucil. 1130 M.) and Varro's claim that *haedus* 'young goat-buck' and some other words were pronounced with the diphthong intact by the city dwellers and with the resulting monophtong in the country: *in Latio rure 'edus', qui in urbe ut in multis <a>addito 'haedus*' (Var., L. VII 96).

<sup>&</sup>lt;sup>6</sup> Ferri, Probert 2010, 21. See also Adams 2007, 81-2; 2013, 73-4. Nonetheless, some rustic forms seem «to have penetrated in urban Latin…even at quite an early period» (Allen 1978, 61). Cf. for instance the form *lēvir* ( $\leq$  PIE *deh*<sub>2</sub>*i-uer-*) 'husband's brother' which is variably spelled in glosses as  $\leq$ laevir> and  $\leq$ levir> (de Vaan 2008, 336; see also Leumann 1977, 68; Sturtevant 1968, 126-27).

<sup>&</sup>lt;sup>7</sup> Cf. Coleman 1971, 183-90. See also above. Evidence from Pompeii, Vindolanda and Roman Africa are discussed (with bibliographical references) in Adams 2013, 73-5. For the Eastern provinces see Galdi 2004, 5-6 and 28-30.

<sup>&</sup>lt;sup>8</sup> Adams 2013, 75.

<sup>&</sup>lt;sup>9</sup> See Loporcaro 2015, 31-2.

Servius (GL IV 421.19-21): E quando producitur, vicinum est ad sonum I litterae, ut 'meta'; quando autem correptum, vicinum est ad sonum diphthongi, ut 'equus'.

Along the same lines, Pompeius (5<sup>th</sup>-6<sup>th</sup> cent. AD) states that the first vowels in *aequus* [' $\epsilon$ :k<sup>w</sup> $\upsilon$ s] 'equal' and *equus* [' $\epsilon$ k<sup>w</sup> $\upsilon$ s] 'horse' differed in their length but not in their quality, so that to pronounce the latter with a long vowel would have represented a *barbarismus* «of vowel length».<sup>10</sup>.

Pompeius (GL V.285.8-9): si velit dicere 'aequus' pro eo quod est 'equus', in pronuntiatione hoc (scil. barbarismus) fit.

It is generally assumed that this "new" both long and open phoneme resulting from /ae/ «must have disturbed»<sup>11</sup> the CL vowel system in some respects; not only since in CL phonemic long vowels used to be phonetically realized as (more tense and thus) closer than the corresponding short ones,<sup>12</sup> but also because «there would for a time have been a long close e, a long open e and a short open e contrasting with the usual long/short pairs».<sup>13</sup>

It is indeed true that some problematic issues regarding the monophthongization of the CL *ae* (and *au*) diphthongs seem to be not entirely coherent with the picture usually assumed to describe both the vowel system of Classical Latin and the so-called Latin-to-Romance transition:

1. While the outcomes of the CL /ae/ in the Romance languages are usually the same of the open  $\langle \epsilon \rangle$ , various Romance reflexes presuppose a close  $\langle e \rangle$  instead (e.g. Lat. *praeda* =  $\langle e \rangle >$  Fr. *proie*, Sp. *prea*, but =  $\langle \epsilon \rangle >$  It. *preda*, Rom. *pradă*).<sup>14</sup> 2. As pointed out by several scholars, many cases of hypercorrection occurring in inscriptions show that the digraph <ae> may also be used in Latin to render an etymological short /ě/: e.g. CIL IV 5817: *Saecundae* (for *Sěcundae*); IV 2163: **Saenecio** (for *Sěnecio*); IV 7650: *Grapichae* (for *Grapichě*: Voc. Sing.)<sup>15</sup>.

### 1.2. The monophthongization of *ae*: the traditional view

According to the traditional view the evidence in 1 and 2 would indicate three different phases in the monophthongization of the CL /ae/ diphthong, namely: 1)

<sup>&</sup>lt;sup>15</sup> The quoted examples from Pompeii are taken by Väänänen 1966, 24-5. See also Coleman 1971, 183-90.



<sup>&</sup>lt;sup>10</sup> Adams 2013, 77.

<sup>&</sup>lt;sup>11</sup> Adams 2013, 78.

<sup>&</sup>lt;sup>12</sup> See e.g. Allen 1978, 47 and Loporcaro 2015, 32.

<sup>&</sup>lt;sup>13</sup> Adams 2013, 78.

<sup>&</sup>lt;sup>14</sup> See Weiss 2009, 510-11. These particular outcomes may be sometimes explained as «the result of various contaminations» (cf. *ibidem*). For instance, according to Coleman 1971, 190, Fr. *proie* would have been influenced by a form \**presa* ['pre:sa] < Lat. *Prehensa(m)*. See also Meyer-Lübke 1935, no. 6714.

/ae/ > 2) / $\epsilon$ :/ (with the two forms co-existing over a period, the former mainly inside and the latter mainly outside Rome) > 3) / $\epsilon$ / (= [ $\epsilon$ ]), corresponding to the complete merger of the inherited diphthong with the CL short / $\epsilon$ /.<sup>16</sup> According to this view,<sup>17</sup> the hypercorrect use of <ae> for / $\epsilon$ / would point to the (only temporary) existence of this new, both long and open, phoneme (viz. / $\epsilon$ :/). By contrast, the hypercorrect use of the same digraph to render the CL (short) / $\epsilon$ /, would indicate that this particular phoneme had eventually undergone shortening (i.e. it had merged with / $\epsilon$ /), restoring "symmetry" in the "disturbed" vowel system of Classical Latin. In particular, since <ae> for / $\epsilon$ / turns up in Latin as early as 37 AD (cf. the form *petiaerit* for *petierit* attested in the "archive of the *Sulpicii*" from Pompeii),<sup>18</sup> the monophthongization process described above is regarded to have taken place in Latin no later than the mid-1<sup>st</sup> cent. AD.<sup>19</sup>

As a result, the  $\langle ae \rangle / \langle \bar{e} \rangle$  and  $\langle ae \rangle / \langle \bar{e} \rangle$  graphemic oscillations (which will become more and more common in inscriptions from the late Empire)<sup>20</sup> would be only linked to the "cultural level" of the draftsmen,<sup>21</sup> showing «nothing more than the interchangeable use of the graphemes  $\langle e \rangle$  and  $\langle ae \rangle \gg^{22}$  in Latin.

<sup>&</sup>lt;sup>16</sup> See, for instance, Coleman 1971, 190-91; Leumann 1977, 55-7 and 67-8; Allen 1978, 48 and 60-1; Adams 2007, 87-8; 2013, 78-9. A completely different view is that of Spence 1965, 4-5. According to this scholar, /ae/ would have changed not to / $\epsilon$ :/, but directly to [ $\epsilon$ ] (i.e., the diphthong would have immediately merged with the CL short / $\epsilon$ /). However, this hypothesis seems to be contradicted not only by the evidence in 1 and 2, but even by passages in Latin grammarians (see above). For further criticism on Spence's thesis, see Coleman 1971, 185.

<sup>&</sup>lt;sup>17</sup> See in particular Adams 2013, 78-9.

<sup>&</sup>lt;sup>18</sup> Cf. Adams 2013, 78. See also Adams 1990, 228 and 230-31.

<sup>&</sup>lt;sup>19</sup> Unlike Adams 2013, 78, and Herman 2000a, 31, other scholars (such as: Coleman 1971, 191-93; Leumann 1977, 55-6 and 67-8; Allen 1978, 61) ascribe the third passage (viz.  $|\epsilon:| > |\check{e}|$ ) only to "late Latin".

<sup>&</sup>lt;sup>20</sup> See, for instance, the data collected in Gaeng 1968.

<sup>&</sup>lt;sup>21</sup> This is, in particular, the opinion of Herman 2000b, 124-27, where the graphemic oscillation between <ae> and <e> is used as a "control phenomenon" to estimate the "educational level" of the writers. As the author points out, «the linguistic change underlying this fluctuation» was already concluded by the early Roman Empire (at least by the 1<sup>st</sup> cent. AD). Therefore, the figures of this fluctuation «can serve as a kind of cultural index for the region concerned» (Adamik 2012, 135). It should be highlighted that this particular study only addressed "Christian" inscriptions dating back to a considerably later period (mid-4<sup>th</sup> to 6<sup>th</sup> cent.) than those investigated here. Since by the 5<sup>th</sup> cent. AD (at the latest), Classical Latin vowel length contrast had entirely ceased to be phonological in Latin (cf. Loporcaro 2015, 18-25 and 57-60; Herman 1982), Herman's suggestion about the <ae>/<e> graphemic oscillations may still be regarded as trustworthy, as far as it only concerns "late Latin".

<sup>&</sup>lt;sup>22</sup> Loporcaro 2015, 52. In any case, for this scholar «these graphical exchanges are proof enough that changes in vowel quality were taking place» (cf. *ibidem*).

#### 1.3. The monophthongization of *ae*: an alternative explanation

A radically different interpretation of the graphemic oscillation between <ae> and <e> in Latin, as well as of the (apparently) inconsistent outcomes of this diphthong in the Romance Languages has been already proposed in 1984 by the Italian scholar Edoardo Vineis.<sup>23</sup> This interpretation requires to consider even Classical Latin as a diasystem (just as modern sociolinguistics does nowadays for every natural language).<sup>24</sup> According to this scholar, it would be possible to identify, already as early as the 3rd cent. BC, two sociolinguistically different registers of Latin: 1) a "higher" one (corresponding to the so-called "Classical Latin"), whose vowel system was still based on phonemic distinctions of vowel length (henceforward VL), and 2) a "lower" one (corresponding to the sociolinguistically lowest varieties of the Latin Language). In particular, the vowel system of the latter register would have been already based on vowel quality contrasts. As a consequence, «la quantità, non più pertinente, tende a disporsi in distribuzione complementare in dipendenza dalla struttura sillabica, secondo il modulo  $\overline{V}$  in sillaba aperta e  $\check{V}$  in sillaba chiusa [VL, no longer phonemic, would have tended to settle into a complementary distribution, according to the pattern:  $\overline{V}$  (scil. long vowel) in open vs.  $\overline{V}$  (scil. short vowel) in closed syllables]».<sup>25</sup>

This particular view may also provide a coherent explanation for the evidence in 1 and 2 discussed above, by postulating the interference between these two registers. In particular, the diverging outcomes of Lat. *praeda* (['prɛ:da]) in, for instance, Italian and French (see above), may be explained by supposing this particular lexical item being synchronically realized both as ['prɛ:da], within the "higher register" (because of the automatic re-association of phonemic length and allophonic tenseness), and as ['prɛda] by speakers adhering to the "lower

<sup>&</sup>lt;sup>23</sup> Vineis 1984.

<sup>&</sup>lt;sup>24</sup> See Labov 1994.

<sup>&</sup>lt;sup>25</sup> Vineis 1984, 48 (English translation according to Loporcaro 2015, 38, with minor changes). The vowel system proposed by Vineis 1984, 48 for the basilectal varieties of the Latin Language is fairly similar to Pulgram 1975, 251-52 "Spoken Latin B", in particular as far as the so-called *open syllable lengthening* (henceforward OSL) is concerned (the term OSL to describe this phenomenon is due to Loporcaro 2011a, 52. See also Loporcaro 2015, 24). Yet, Vineis 1984 and Pulgram 1975 differ, at least, in two fundamental respects. According to the latter, not only 1) in "Spoken Latin B" classical VL «has disappeared completely in both the phonemic and the phonetic statement», but 2) the OSL rule described above would have occurred only in certain regions. Moreover, for this scholar, this particular register (viz. "Spoken Latin B") would have been synchronically attested together with both "Spoken Latin A" (viz. a "higher" register), where vowel quality would have been phonological and classical VL only «an accompanying predictable (scil. allophonic) feature», and "Written Latin" (corresponding to the so-called Classical Latin), which would have been confined only to metrical poetry and to some "official" occasions (Pulgram 1975, 252). Cf. also Loporcaro 2015, 34-8.

register"; for these speakers would have re-associated the phonological open quality of the vowel (viz.  $\langle \varepsilon : \rangle$ ) with allophonic short quantity.<sup>26</sup> Analogously, the existence of such pronunciations within the two above-mentioned synchronically co-existing registers of Latin (where the spelling <ae> could correspond to both 1) [e:], 2) [ $\varepsilon$ :] and 3) [ $\varepsilon$ ])<sup>27</sup> would have favoured hypercorrections like those attested by the inscriptional evidences (viz. <ae> for  $\overline{e} = [\varepsilon$ :] and for  $\breve{e} = [\varepsilon$ ]).<sup>28</sup>

In other words, for Vineis 1984 (and for Pulgram 1975), the  $\langle ae \rangle / \langle \tilde{e} \rangle$  and  $\langle ae \rangle / \langle \tilde{e} \rangle$  graphemic oscillations would presuppose a premature dephonologization of the CL vowel quantity contrast, already as early as the 3<sup>rd</sup> cent. BC (at least in some sub-standard varieties of Latin).<sup>29</sup>

Since the hypothesis concerning such a dephonologization (in the so-called "Vulgar" Latin) has been recently taken into account by several scholars,<sup>30</sup> this paper will attempt to investigate whether a similar view may be supported by the inscriptional evidence.

### 2.1. Materials and methods

In order to do so, we have therefore calculated the relative frequency of the  $\langle ae \rangle / \langle \bar{e} \rangle$  and  $\langle ae \rangle / \langle \bar{e} \rangle$  graphemic oscillations in three different groups of both synchronic and syntopic, but diaphasically (and diastratically) different, inscriptions from the city of Rome (according to the methodology proposed in Mancini 2014).<sup>31</sup>

<sup>31</sup> Mancini 2014, 37-9.

<sup>&</sup>lt;sup>26</sup> Vineis 1984, 54. See also Marotta 2017, 58 and 69-72.

<sup>&</sup>lt;sup>27</sup> And, over a period, even perhaps to the diphthongized pronunciation (see below).

<sup>&</sup>lt;sup>28</sup> Vineis 1984, 54-5. According to this scholar (cf. *ibidem*), this would also explain why /ae/ is sometimes scanned as short even in Plautus (see for instance Pl., *Mil.* 1190, *ut eat, ut properet, ne sit matri morae. Multimodis sapis*). Cf. also Fortson 2008, 230.

<sup>&</sup>lt;sup>29</sup> This view is partially shared also by Väänänen 1966, 18 (see also Väänänen 1981, 30-1), with the major difference being that, according to this scholar, <a> for /ĕ/ (which is variably attested at Pompeii; see above), would indicate not the existence of two synchronically co-existing registers within the Latin diasystem (as for Vineis 1984 and for Pulgram 1975), but a complete dephonologization of the CL vowel-quantity contrast as early as the 1<sup>st</sup> cent. AD. Nonetheless, as Loporcaro 2015, 52 rightly states (see also the whole discussion at pp. 51-7) this «argument is inconclusive, since examples of <a> for  $\bar{e}$  do occur as well...in spite of the fact that the corresponding phonemes never merged in Romance (except in Sardinian)».

<sup>&</sup>lt;sup>30</sup> This paper will not address whether this dephonologization occurred via the OSL rule described above (as supposed by Vineis 1984, Benedetti, Marotta 2014, Marotta 2017) or via a free allophonic variation independently from syllabic structure (as proposed in Pulgram 1975 and, more recently, Mancini 2001; 2015a; 2015b).

Funerary and honorary epigraphs published in the 8<sup>th</sup> section of CIL VI, which collects all the inscriptions referring to the highest classes of Roman society (*titulos imperatorum domusque eorum* and *titulos magistratuum populi romani*). In particular, all the inscriptions considered for this first group are dated between the years 37 AD (death of Tiberius) and 251 AD (death of the Emperor Decius).
Common funerary inscriptions ranging from CIL VI 8399 to CIL VI 9400<sup>32</sup> and dating back to the first three centuries of the Roman Empire.

3. "Graffiti del Palatino", which is a corpus of about 700 "vulgar" inscriptions collected under the direction of V. Väänänen.<sup>33</sup> To provide an exact dating for all the graffiti is somewhat problematic. Nonetheless, according to several and both internal (such as palaeography, onomastic and formulary features of the inscriptions) and external (viz. archaeological) criteria, most of the graffiti may be dated between the reign of Nero (who ordered the opening of the so-called Domus Tiberiana) and the decades immediately following that of the Emperor Caracalla (211-217 AD).<sup>34</sup> Difficulties arise even in the attempt of classifying this last group of inscriptions from a sociolinguistic point of view. On the one hand, unlike those of groups 1 and 2, these inscriptions lack every character of officiality (which is shared, at least in part, even by the common funerary epitaphs collected in group 2). On the other hand, some internal features (such as the current use of the Old Roman Cursive), may suggest an average (even high) educational level of their writers (above all if, as seems very likely, they were both imperial *pagi* attending the *Paedagogium* and officers working in the *Domus Tiberiana*).<sup>35</sup> 4. Finally, also other relevant misspellings occurring in the Computerized Historical Linguistic Database of Latin Inscriptions of the Imperial Age (henceforward LLDB) were added to the sample considered.

As a result, we took into account a sociolinguistically relevant corpus of about 2500 syntopic inscriptions from Rome which refer to three diaphasically (and diastratically) different sociolinguistic levels. All the inscriptions considered were composed between the mid-1<sup>st</sup> cent. AD and the mid-3<sup>rd</sup> cent. AD.<sup>36</sup>

 $<sup>^{32}</sup>$  This is a part of a larger sample of inscriptions considered in Herman 1971 for the study of the  $<\!u\!\!>\!\!/<\!\!o\!\!>$  and  $<\!\!i\!\!>\!\!/<\!\!e\!\!>$  graphemic oscillations in Latin.

<sup>&</sup>lt;sup>33</sup> Solin, Itkonen-Kaila 1966; Castren, Lilius 1970.

<sup>&</sup>lt;sup>34</sup> This last date may be inferred considering the high frequency of the *cognomen Aurelius* within the "Graffiti", since it became increasingly common in the Empire only after the *Constitutio Antoniniana* (212 AD). The problem concerning the dating of the graffiti is discussed at length in Solin, Itkonen-Kaila 1966, 45-57; Castren, Lilius 1970, 82-4 and 102-105.

<sup>&</sup>lt;sup>35</sup> Cf. Solin, Itkonen-Kaila 1966, 68-78 and Castren, Lilius 1970, 102-105.

<sup>&</sup>lt;sup>36</sup> The established dates refer, respectively, to 1)  $|\varepsilon| > |\check{e}| > |\check{e}|$  according to the traditional view (see above) and 2) the "end" of the so-called "Classical Latin" according to Adamik 2015, 647-48 and 650.

During the course of the present investigation, three different kinds of misspellings have been taken into account, namely: <ae> for both the CL long (B) and short (C) e; <e> for /ae/ (D).<sup>37</sup>

In particular, the <ae>/<e> graphemic oscillation in each group has been investigated by calculating the relative proportion of correct (A = <ae> for /ae/) and incorrect spellings (or "error rate") for each one of the three groups of inscriptions mentioned above. Furthermore, since, according to Herman,<sup>38</sup> the short /ĕ/ phoneme is ca. 3.4 times more frequent in Latin than the long /ē/, we have also investigated whether or not the <ae>/<ē> and <ae>/<ē> graphemic oscillations affect each group with more than the chance frequency. If our working hypothesis is correct (see above), this should be true (nearly) only for inscriptions referring to the lowest varieties of the Latin Language (viz. groups 2 and 3), where, the VL contrast no longer being phonemic, the digraph <ae> (mainly representing /ɛ:/), may be used also to render the CL short (and open) /ē/, since within these sociolectal varieties the two vowels (viz. /ɛ:/ and /ĕ/) could be freely associated on the basis of their similar quality, and regardless of their difference in length (the reverse occurring within the sociolinguistically highest registers).<sup>39</sup>

## 3. The analysed data

## 3.1. Group 1 (Table 1)

The first group (official honorary and funerary inscriptions ranging from 37 AD to 251 AD) hardly shows any confusion between  $\langle ae \rangle$  and  $\langle e \rangle$ . The grapheme  $\langle ae \rangle$  is used correctly in more than 97% of the items considered (353 out of 362 cases). Focusing only on "misspellings", the one occurring most is  $\langle e \rangle$  for  $\langle ae \rangle$  (D), even if with only 6 instances (1.65%). Conversely,  $\langle ae \rangle$  for  $\langle e/$  (C) occurs

<sup>&</sup>lt;sup>37</sup> This last error may say nothing about developments concerning contrastive VL in "Vulgar" Latin. Being both  $\overline{\ell}$  and  $\overline{\ell}$  represented by <e>, it is impossible to establish whether the relevant vowel was perceived as [e:] or [ $\epsilon$ ] (see the discussion in Coleman 1971, 185). Nonetheless, it may serve as a useful index to establish the "educational level" of the writers (see below).

<sup>&</sup>lt;sup>38</sup> Herman 1968, 197.

<sup>&</sup>lt;sup>39</sup> See above and also Ciancaglini, Keidan 2018, vol. 2, 263.

only twice in this first group of inscriptions.<sup>40</sup> <Ae> for  $/\bar{e}/$  is even less common, with only a single case attested.<sup>41</sup>

It may also be noticed that nearly all the cases considered occur in inscriptions dating back only to the mid- $3^{rd}$  cent. AD (viz. very close to the chronological limit which was established for the present investigation). This may confirm that the spelling of the diphthong had remain intact over a longer period in educated speech (or, at least, that careful writers still tried to avoid <e>).

Concluding, since the phoneme  $|\check{e}|$  is about three times more frequent in Latin than the corresponding long vowel (see above), <ae> for  $|\check{e}|$  appears to affect this first group with even less than the chance frequency.

Group 1				
Code	Spelling	Phoneme	Tokens	% ca.
Α	<ae></ae>	/ae/	353	97.5
В	<ae></ae>	/ē/	1	0.3
С	<ae></ae>	/ĕ/	2	0.55
D	<e></e>	/ae/	6	1.65
Total			362	100
				Table 1

Table 1

### **3.2. Group 2 (Table 2)**

Data collected from group 2 (common funerary inscriptions ranging from ca. 50 AD to ca. 250 AD) sketch a remarkably different picture. In the first instance, graphemic confusions between <ae> and <e> appear with little more frequency than in the case of official inscriptions (group 1). However, the diphthong is spelled correctly in ca. 91.4% of the items considered (1210 out of 1324 tokens). Thus, we can observe an increase in the error rate of only ca. 6% between the two groups investigated so far (less than 3% in group 1 vs. ca. 8.6% in group 2). Surprisingly enough, <e> for /ae/ (D) and <ae> for /ĕ/ (C) affect this group with almost the same frequency. We have indeed 51 "misspellings" of the first type (viz. D)  $(3.9\%)^{42}$  vs. 55 confusions of the second (viz. C) (ca. 4.1%). It may be

<sup>&</sup>lt;sup>42</sup> CIL VI 8503: <sanctissime> for *sanctissimae* is dubious. The inscription is damaged on the right side bearing the word. It is thus possible that <a> was originally written before <e>.



<sup>&</sup>lt;sup>40</sup> CIL VI 41303: <aeques> for *ĕques*; 41307: <aeorum> for *ĕorum*. That the first vowel of *ĕorum* was a short one is extensively testified by the classical poetry (e.g. Lucr. I 772, *Nil in concilio naturam ut mutet eorum*). Yet for Coleman 1971, 187, this misspelling may be not revealing, since the vowel may have been perceived as closer due to the hiatus position. In this case, we based our survey on the classical form. We also found <Eporaediensium> for *eporediensium* (CIL VI 41255). Yet, in this case, we are not able to determine whether the relevant vowel was long or short.

<sup>&</sup>lt;sup>41</sup> CIL VI 41208: <Craetae> for *Crētae*.

highlighted that <e> for <a> does also occur within the dative singular of several Greek nouns of the Latin first declension,<sup>43</sup> such as for instance <Tyche> for *Tychae* in CIL VI 9328 (mid-1<sup>st</sup> cent. AD). Nonetheless, since <e> is often used in Latin to render the Greek < $\eta$ >,<sup>44</sup> these spellings are much more likely to reflect the writer's attempt to realize a "faithful" transcription of the corresponding Greek nouns (cf. Gk. Tó $\chi\eta$  Dat. Sing. Tó $\chi\eta$ )<sup>45</sup> than to indicate any development within the "Vulgar" Latin vowel system. Therefore, these items were excluded from the present sample.

Even in this case, the graphemic confusion occurring less often is  $\langle ae \rangle$  for  $\bar{e}/(B)$ , of which only 8 cases have been listed (ca. 0.6%).<sup>46</sup> Two main differences may be highlighted concerning the two epigraphic corpora analysed so far.

Firstly,  $\langle ae \rangle / \langle e \rangle$  confusions occur in group 2 within the whole chronological range considered in the present investigation, and not only at a later period (as in group 1); for even if most of the relevant instances dates back to the 2<sup>nd</sup> cent. AD,<sup>47</sup> we were also able to list "misspellings" dating back to both the mid-1<sup>st</sup> and the mid-3<sup>rd</sup> cent. AD.<sup>48</sup>

Secondly (and most importantly), since 55 cases of  $\langle ae \rangle$  for  $\langle e/v \rangle$  so only 8 instances of  $\langle ae \rangle$  for  $\bar{e}/v \rangle$  were detected, the digraph appears in this case to be used to render the CL short  $\bar{e}/v \rangle$  more than twice the times than it would be expected given a random distribution.

Group 2				
Code	Spelling	Phoneme	Tokens	% ca.
Α	<ae></ae>	/ae/	1210	91.4
В	<ae></ae>	/ē/	8	0.6
С	<ae></ae>	/ĕ/	55	4.1
D	<e></e>	/ae/	51	3.9
Total			1324	100
				Table 1

Table 2

<sup>&</sup>lt;sup>43</sup> 55 items in total.

<sup>&</sup>lt;sup>44</sup> Cf. Allen 1987, 66. See also below.

<sup>&</sup>lt;sup>45</sup> In the present case, note also the use of  $\langle y \rangle$  and of the digraph  $\langle ch \rangle$  for Gk.  $\langle u \rangle$  and  $\langle \chi \rangle$ , respectively. See also Adams 2003, 473-79; Galdi 2004, 29.

<sup>&</sup>lt;sup>46</sup> <Aeius> for *eius* (CIL VI 8523) is reported as problematic in Coleman 1971, 188. Nonetheless, *eius* is often scanned as *ēius* in Plautus (e.g. Pl., *Aul.* 13). Cf. TLL VII 2, 457; Palmer 1977, 311; de Vaan 2008, 309-10; Weiss 2009, 341.

 $<sup>^{47}</sup>$  85 out 114 deviations registered = ca. 74,5%. Yet this may simply be due to the fact that most of the inscriptions belonging to group 2 actually dates back to this particular period.

<sup>&</sup>lt;sup>48</sup> In particular, we listed 17 oscillations dating back to the former (ca. 15%) and 12 graphemic fluctuations dating back to the latter period (ca. 10,5%).

### **3.3. Group 3 (Table 3)**

The trend emerging within the analysis of group 2 is eventually confirmed also by data referring to the last group of inscriptions considered ("Graffiti del Palatino"). In this case, the "error rate" is the highest registered within the present investigation; for customary spellings for the CL /ae/ diphthong occur only in ca. 61.5% of the items considered (16 out 26 cases). As in group 1 (but unlike group 2), <e> for /ae/ (D) is the most attested "misspelling" even in this last corpus, with 9 cases (ca. 34.6%). Yet, most importantly, the digraph <ae> is never used within inscriptions of this last group to render the CL long /ē/. Conversely, the opposite hypercorrection (viz. <ae> for short /ĕ/) actually occurs, even if only in a single case (ca. 3.9%).

Solin, Itkonen-Kaila 1966, no. 270: ...]s Lentus / Aureli, Stephani / [a] alteram parte(m), cupiditatae (for cupiditatě = Abl. Sing.) / Numisi.

Interestingly, this situation appears to be not without comparisons within the Latin sources. Indeed, the same occurs also within the so-called "archive of the *Sulpicii*" from Pompeii, a non-literary corpus dating back to the mid-1<sup>st</sup> cent. AD, which was analysed by Adams.<sup>49</sup> As the author points out, not only <e> for <ae> seems to be «already the norm» (with 17 cases in which «is only a small corpus»),<sup>50</sup> but the only hypercorrect use of <ae> occurring in the whole archive (viz. *petiaerit* for *petiěrit*) precisely regards a short *ĕ*,<sup>51</sup> a state of things that perfectly mirrors that of the "Graffiti del Palatino" (with the major difference being that the archive above may be dated with great precision to 37-39 AD).<sup>52</sup>

Group 3				
Code	Spelling	Phoneme	Tokens	% ca.
Α	<ae></ae>	/ae/	16	61.5
В	<ae></ae>	/ē/	0	0
С	<ae></ae>	/ĕ/	1	3.9
D	<e></e>	/ae/	9	34.6
Total			26	100

Table 3

- 50 Adams 2013, 73.
- <sup>51</sup> Adams 1990, 230; 2013, 73 and 78.
- <sup>52</sup> Adams 1990, 227 and 247.

<sup>&</sup>lt;sup>49</sup> See Adams 1990 and Adams 2013, 73-4.

#### 4.1. Some preliminary conclusions

The data collected so far allow some preliminary considerations concerning the investigated phenomenon.

In the first instance it may be noticed that, at least for group 2 (viz. common funerary inscriptions), both <e> for /ae/ and the corresponding inverse spellings (viz. <ae> for / $\bar{e}$ / and for / $\bar{e}$ /) seem to occur as early as the mid-1<sup>st</sup> cent. AD. Moreover, these graphemic fluctuations are also found in inscriptions dating back to both the 2<sup>nd</sup> and the mid-3<sup>rd</sup> cent. AD (in other words, they occur within the whole chronological range considered in this study). This may point to the fact that, not only / $\epsilon$ :/ had reached Rome already during the early Empire, but also that, unlike usually assumed (see above), this "new" both long and open phoneme merged with the inherited short / $\bar{e}$ / only at a later time.<sup>53</sup>

Furthermore, it seems that the investigated graphemic oscillation is not likely to depend entirely on the "level of literacy" of the writers (as proposed in Herman 2000b). Conversely, this last assumption seems to be confirmed for (nearly) only one of the "misspellings" investigated above, namely <e> for /ae/ (Table 4).

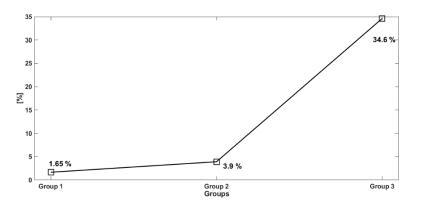


Table 4: <e> for /ae/: "error rate" within the three investigated epigraphic corpora.

<sup>&</sup>lt;sup>53</sup> A similar view is also expressed in Coleman 1971, 190-91.

The figures for this graphemic fluctuation are indeed virtually non-existent within the most "formal" inscriptions (group 1), but they reach their peak where the most "informal" ones (viz. those of group 3) are addressed (see above). This may show that, by the first three centuries of the Empire, the monophthongized pronunciation of the CL /ae/ diphthong (viz. [ $\varepsilon$ :]) had become common, not only within the lowest varieties of the Latin Language, but also in casual speech of (enough) educated speakers, as allegedly were those who realized the "Graffiti del Palatino". On the other hand, it seems likely that, at least in formal speech, the corresponding diphthongized pronunciation resisted over a period, perhaps «under the influence of grammarians».<sup>54</sup> This would also explain why, in the most "official" contexts (cf. groups 1 and 2),<sup>55</sup> even uneducated writers tried (not always successfully) to use the customary spellings for both the phonemes / $\varepsilon$ :/, / $\bar{e}$ / and / $\bar{e}$ /.

The figures for B (i.e.  $\langle ae \rangle = /\bar{e}/\rangle$  draw a remarkably different picture; for not only do these figures show a very low increase between groups 1 and 2, but this particular misspelling is totally absent in group 3 (i.e. the most informal inscriptions). On the other hand, the use of the digraph  $\langle ae \rangle$  for the CL short  $/\bar{e}/$ , seems to be much more common in informal (groups 2 and 3) than in formal (group 1) inscriptions.

To conclude, the uneven distribution of the investigated  $\langle ae \rangle / \langle \bar{e} \rangle$  and  $\langle ae \rangle / \langle \bar{e} \rangle$  graphemic oscillations is not likely to be due only to the fact that, as pointed out in Herman 1968 (see above), « $\check{e}$  was altogether much more frequent» in Latin «than  $\bar{e}$ »;<sup>56</sup> for, as noticed before, the investigated graphemic oscillations affect only the most "formal" inscriptions (group 1) with less than the chance frequency. On the contrary, not only in group 2 the digraph  $\langle ae \rangle$  is used to render the CL / $\check{e}$ / instead of the CL / $\check{e}$ / much more often than would be expected given a random distribution, but the spelling  $\langle ae \rangle$  for / $\check{e}$ / never occurs within the "Graffiti del Palatino" (Table 5). Furthermore, since in this same group the other investigated misspellings occur as well, the situation observed here is not likely to be only due to the "educational level" of the writers.

<sup>56</sup> Loporcaro 2015, 52.

<sup>&</sup>lt;sup>54</sup> Adams 2013, 75.

<sup>&</sup>lt;sup>55</sup> Even if the "educational level" of the writers may often have been very low, common funerary inscriptions from group 2 were in any case realized for a somehow "public" purpose.

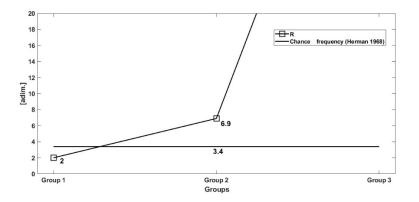


Table 5: Ratio between the use of  $\langle ae \rangle$  for  $\langle \breve{e} \rangle$  and the use of  $\langle ae \rangle$  for  $\langle \breve{e} \rangle$  within the three investigated epigraphic corpora (as respect to the "chance frequency").

In other words, our data may have shown that the investigated graphemic oscillations might be linked with a variation occurring in the vowel system of the socalled "Vulgar" Latin, already during the Classical period.

More precisely, our results may point to the fact that, at least in formal speech of well-educated speakers, the vowel-quantity contrast still being phonological, the both long and open / $\epsilon$ :/ deriving from /ae/ may still have been kept distinct from the CL short (and open) / $\epsilon$ / (regardless of the similar quality of these two vowels).<sup>57</sup> Yet, the same does not seem to be true also for the sociolinguistically lowest varieties of the Latin Language. On the contrary, our data might have confirmed that (nearly) only at this sociolinguistic level, this same phoneme may be freely associated with the CL inherited / $\epsilon$ / on the basis of the similar quality, and regardless of the difference in length of these two vowels, therefore suggesting a premature "weakening" of the CL vowel quantity contrast, at least as far as some sub-standard varieties of the language are concerned<sup>58</sup> (as already proposed by scholars like Pulgram, Vineis and, more recently, Marotta).<sup>59</sup>

<sup>&</sup>lt;sup>57</sup> The same, may be noticed, happens even nowadays «in today's popular Québecois French», where the word *brique* 'brick', which is «realized variably as ['brik] or ['brek]...contrasts for length with the English loanword ['bre:k] 'brake'» (Loporcaro 2015, 53).

<sup>&</sup>lt;sup>58</sup> Further proof is also offered by the outcomes of some Greek loanwords in Latin. In particular, Gk.  $\langle \eta \rangle$  (pronounced [ε:]) is often rendered with Latin /ē/ (=[e:]) as in *apothēca* (Gk. ἀποθήκη). Yet, we are also aware that in "popular" speech it was preferred to render the corresponding Greek phoneme with the grapheme  $\langle ae \rangle$  (= /ε:/), since the two vowels shared the same quality. See Ciancaglini, Keidan 2018, vol. 2, 263.

<sup>&</sup>lt;sup>59</sup> See, respectively Pulgram 1975, Vineis 1984 and Marotta 2015; 2017. Cf. also Mancini 2001; 2015a; 2015b.

Even negative evidence should be taken into account. For instance, it must be noticed that the three investigated inscriptional corpora vary significantly in terms of items to be addressed for the present purpose (cf. more than 1300 tokens vs. only 26 for groups 2 and 3, respectively). Along the same lines, (almost) all of the inscriptions from the LLDB database share the same typology of those of group 2. In other words, we are perfectly aware of the fact that definitive findings cannot be derived from a preliminary investigation like the one carried out here, since this investigation was based only on a very limited survey of inscriptions. Nevertheless, we hope that the results achieved here (even if partial), may pave the way for further studies on the same topic.

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