CHAPTER 2

The Latin Alphabet and Orthography

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"Why is the alphabet in that order? Is it because of that song?"
(Steven Wright, stand-up comic)

Introduction

The alphabet used by Latin-speaking peoples resembles the alphabets used today to write most of the languages of Europe and the Americas.[1] The scripts of these languages have the Latin alphabet as their ancestor.[2]

The Latin alphabet of the late republican period was composed of twenty-one letters (*unius et uiginti formae litterarum,* Cic. *N.D.* 2.93). Table 2.1 is a list of the letters arranged in canonical order. Each letter is in capital form accompanied by its letter name and the phoneme(s) that it represented.

The alphabet presented in Table 2.1 was codified before the end of the third century BCE. The order of the letters, which follows that inherited from the Etruscan alphabet (see below), was remarkably resistant to change. It remained the same, apart from the addition of two letters borrowed from ancient Greek in the first century BCE (see further below), until the end of Roman *imperium*. Even today the order of the letters in the English alphabet and the names for the letters that English speakers teach their children follows the Latin closely.[3]

Arrival of the Alphabet in Italy

The origin of the Latin alphabet begins with the establishment of permanent Greek settlements in southern Italy in the eighth century BCE.[4] Colonists from the Euboean city of Khalkis established an emporium on the island of Pithekoussai (modern Ischia) before

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Table 2.1 The Classical Latin alphabet

Form	*Name*	*Phoneme(s)*	*Form*	*Name*	*Phoneme(s)*
A	*a*	/a, a:/	L	*el*	/l/
B	*be*	/b/	M	*em*	/m/
C	*ce*	/k/	N	*en*	/n/
D	*de*	/d/	O	*o*	/ɔ, o:/
E	*e*	/ɛ, e:/	P	*pe*	/p/
F	*ef*	/f/	Q	*qu*	/k/
G	*ge*	/g/	R	*er*	/r/
H	*ha*	/h/, ø	S	*es*	/s/
I	*i*	/ɪ, i:, j/	T	*te*	/t/
K	*ka*	/k/	V	*u*	/ʊ, u:, w/
			X	*eks*	/ks/

750 BCE and a settlement on the mainland at Kyme (Cumae) a few decades later (*c.* 730–720 BCE). Some members of these communities had become literate in their home city; they were responsible for introducing the alphabet to Italy.

The oldest epigraphic evidence in Euboean Greek is on an impasto flask recovered from a grave at the Osteria dell'Osa cemetery near the ancient city of Gabii situated about eleven miles east of Rome.[5] The flask was incised from left to right with five letters. Ultimately it was deposited in a *dolium* that was buried together with the remains of a woman.[6] The inscription is generally read as *euḷin*, which is shorthand for the adjective εὔλινος, "skillfully spinning," referring to one of the traditional tasks of a woman.[7] More substantive Greek inscriptions in the Euboean dialect have been recovered from southern Italy,[8] including the important metrical inscription on "Nestor's cup," a kotyle recovered in 1954 from a grave in a necropolis on Pithekoussai,[9] and the proverbial sentiment, also possibly metrical, incised on a lekythos from Kyme.[10]

Once introduced to Italy, the alphabet diffused rapidly to native peoples. Etruscans from southern Etruria borrowed the alphabet in the last quarter of the eighth century BCE.[11] Other native peoples of the Italian peninsula adopted the alphabet soon after, generally via Etruscan intermediation.[12] If the dates of attestation of inscriptions are to be trusted as a rough guide to the paths of diffusion and dates of adaptation, we see that the alphabet fans out in all directions from Etruria. Old Umbrian inscriptions date to the seventh century BCE, as do inscriptions in Faliscan and Latin. Inscriptions in South Picene, Oscan, Venetic and Transalpine Celtic date to the sixth century BCE.

Etruscan Origins

The primary source of the Latin alphabet – Greek or Etruscan – remains controversial. Scholars who favor a Greek origin point out that the letters B, D, O and X have roughly the same phonological values in Latin as in Greek. Scholars who favor an Etruscan origin point out that the letter C has the same phonological value in Latin as in Etruscan.

Table 2.2 Spelling of velars in Very Old Latin inscriptions

	/k/	*/g/*	*/kʷ/*
Fibula	FHE:FHAKED	–	–
Forum	KALATOREM KAPIA(D) SAKROS	RECEI	QVOI, QVOS
Duenos	PAÇA FEÇED COSMIS	VIRCO	QOI
Kavidios	–	KAVIDIOS, EQO	–
Garigliano	KOM, SOKIOIS	–	–
Tibur	–	KAVIOS	QETIOS
Pulpios	–	EQO	
Corcolle	[D]ICASE	–	–

In Greek the letter C (*gamma*) stood for a voiced velar stop. (Etruscan did not have voiced stops.) In this case alphabetic patrimony is best determined by considering orthographic rules and developments that are so unusual they are unlikely to have arisen independently in different languages' writing systems.[13] Spelling conventions attested in Very Old Latin inscriptions point to the Etruscans as the source of the Latin alphabet.

In Very Old Latin inscriptions the velar stops /k, g/ and the labialized velar /kʷ/ were spelled by C, K and Q (see Table 2.2).[14] This diversity of spelling makes sense if it is viewed as an attempt to carry over into Latin the southern Etruscan orthographic convention whereby /k/ was spelled by means of the so-called C/K/Q-rule. In archaic Etruscan the letter C was written before the letters I and E (CI, CE), the letter K before the letter A (KA), and the letter Q before the letter V (QV), e.g. Etruscan KACRIQV [meaning unclear] (*ET* Ta 2.1).[15] A Latin reinterpretation of this convention is found in the Forum inscription (*CIL* I².1). Consider the spelling of the following words: RECEI /re:gej/ "king"; KAPIA(D) /kapɪa:d/ "take"; SAKROS /sakrɔs/ "cursed"; QVOI /kʷoj/ "who." As can be seen from the transcriptions, the Etruscan rule was generalized in Latin to include the stops /g/ and /kʷ/, sounds that were not present in the Etruscan inventory. And there was an additional twist: the letter K was written before O as well as A. (Etruscan had no /ɔ/ or /o/.) Borrowing from an Etruscan source provides some rationale for the spelling of the velar stops in other Very Old Latin inscriptions as well. For example, the person who incised the text on the *Duenos* vase appears to have written FEKED and PAKA and then corrected the letter K in both words to C, FEÇED "made" and PAÇA [meaning unclear] revealing some uncertainty about when to use C and K.[16] The same writer used the letter C to spell /k/ and /g/ before O (COSMIS "kind," VIRCO "girl"), and he spelled /kʷ/ by means of Q (QOI "who") rather than QV.[17] Other writers resolved the issue of how to spell velar stops before the O-letter in a different manner. In the *Kavidios* inscription, K was written before A (KAVIDIOS /ga:wɪdɪɔs/), but Q was written before O (EQO /ɛgo:/).[18]

A second spelling convention points to the Etruscans. The phoneme /f/, which was absent from the phonological inventories of ancient Greek dialects, was present in

Figure 2.1 Etruscan *abecedarium* incised on miniature ivory writing tablet, Marsiliana d'Albegna (Rix *Etruskische Texte* AV.1). Drawing by Brigette McKenna, University of Massachusetts Amherst.

Etruscan and was written by means of a digraph FH.[19] This convention was borrowed to spell the corresponding labial fricative /f/ in Latin, e.g. FHE:FHAKED "made" (*CIL* I^2.3); FHĘ[CED] "made" (Peruzzi (1963)).[20]

Scholars who favor a Greek origin for the Latin alphabet counter that B, D and O were "dead" letters in Etruscan, that is to say, were never used to spell sounds in inscriptions. It must be remembered, however, that these letters remained in Etruscan *abecedaria* for over a hundred years after the alphabet was adopted. The Etruscan *abecedarium* incised on the border of a miniature ivory writing tablet recovered from Marsiliana d'Albegna carried the twenty-six letters inherited from Euboean Greek (Figure 2.1). Latin speakers learned an unabridged alphabet of this type, one having the full complement of letters. A clever and innovative scribe resurrected the "dead" letters B, D and O in order to represent sounds in Latin that were not found in the Etruscan phonological system. Direct transmission from Greek does not permit a compelling explanation for the use of the letter C to represent a voiceless velar stop in Latin, whereas borrowing from Etruscan does.

Date of Borrowing and Other Considerations

Determining the date of the origin of the Latin alphabet is problematic. Despite recent discoveries,[21] the inventory of Latin inscriptions that can be reliably dated to the seventh and sixth centuries BCE is very small (see Table 2.3).[22] The number that can be dated to the seventh century BCE is smaller still. Of these, two – the *Vetusia* inscription and the *Fibula Praenestina* (Figure 2.2) – are the subject of controversy.[23] The former is problematic because the inscription is interpreted by some as Etruscan; the latter because some consider the gold fibula and its inscription of questionable authenticity. If these items are part of the Latin corpus, – and I am inclined to think they should be included – the date at which the Latin alphabet was adopted must be somewhere in the first half of the seventh century BCE. If they are rejected, the date of borrowing could be as low as *c.* 650–625 BCE.

The paucity of Latin inscriptions that can be assigned to the seventh century BCE and our inability to date them very accurately make it impossible to say much that is substantive about the point of origin and the diffusion of the alphabet in Latium. But we might speculate that the Etruscan alphabet was passed on by an inhabitant of Caere or Veii, given the proximity of these Etruscan towns to the Latin-speaking communities just south of the Tiber River, and given the material evidence for contact between them. Regardless of the point of origin, however, it is notable that inscriptions appear in many parts of Latium by the end of the sixth century BCE.

The reasons for the acquisition of the alphabet by Latin speakers also escape us. It is plausible to think that writing was borrowed to keep accounts of small-scale trade and

Table 2.3 Very Old Latin inscriptions of the seventh to sixth centuries BCE*

	Findspot	*Date*	*Inscription*	*Citation*
1	Praeneste	*c.* 700–600	*Vetusia* inscription	*ET* La 2.1
2	Praeneste	*c.* 700–600	*Fibula Praenestina*	*CIL* I².3
3	Gabii	*c.* 620–610	*Tita* inscription	Colonna (1980)
4	Caere [Rome]	*c.* 625–600	*Vendia* inscription	Peruzzi (1963)
5	Roma	*c.* 700–500	Forum inscription	*CIL* I².1
6	Tibur	*c.* 700–400	Tibur inscription	*CIL* I².2658
7	Roma	*c.* 600–550	*Duenos* inscription	*CIL* I².4
8	Satricum	*c.* 600–480	*Lapis Satricanus*	*CIL* I².2832a
9	Ardea	*c.* 560–480	*Kavidios* inscription	*CIL* I².474
10	Corcolle	*c.* 550–400	Corcolle inscription	*CIL* I².2833a
11	Lavinium	*c.* 550–400	Madonetta inscription	*CIL* I².2833
12	Garigliano	*c.* 500–480	Garigliano inscription	Vine (1998)
13	Roma	*c.* 560–450	*Pulpios* inscription	*CIL* I².479
14	Roma	*c.* 550–300	*Rex* inscription	*CIL* I².2830
15	Ficana	*c.* 600–500	Monte Cugno inscription	*CIL* I².2917c
16	Aqua Acetosa	*c.* 500–450	*Manias* inscription	*CIL* I².2917b
17	Aqua Acetosa	*c.* 500–400	*Karkavaios* inscription	*CIL* I².2917a

* For the dates assigned to these inscriptions see Hartmann (2005).

Figure 2.2 The *Fibula Praenestina* (*CIL* I².3). Reproduced by permission of The Center for Epigraphical and Palaeographical Studies, The Ohio State University.

exchange, and to serve other modest and mundane economic functions, but we have no evidence to support this idea. If the oldest documents in Latin were of such a nature, they were written on perishable material and have not survived. Two of the oldest Latin inscriptions were incised on luxury items, a silver bowl and a gold fibula, that accompanied

Figure 2.3 The Forum inscription (*CIL* I².1). Reproduced by permission of The Center for Epigraphical and Palaeographical Studies, The Ohio State University.

their owners to the grave. The other two seventh-century pieces were incised on ceramic and were also part of the burial cache of their owners. The custom of writing on *instrumenta domestica* was commonplace among elite Etruscans of the seventh and sixth centuries BCE.[24] Incised objects were often exchanged as gifts for the purpose of cementing social ties, military pacts, and trade alliances. It is conceivable that interpersonal relationships of this sort could have facilitated the acquisition and diffusion of writing. But even if the transmission of writing had its origin in contacts between elite Etruscan and Latin speakers, it was soon used in the public arena. The Forum inscription, although difficult to interpret, may have served a juridical function.[25] The *cippus* on which it was inscribed was set up at the boundary between the Forum and the *Comitium* in the center of Rome (Figure 2.3).

Innovations and Changes

It is almost never the case that the alphabet of one language is entirely suited to represent the sounds of another. As a result, during the initial stages of adaptation, adjustments may be made. For example, the Etruscan letters that represented sounds Latin speakers did not have in their inventory, e.g. *theta*, *sade*, *phi*, and *khi*, were not incorporated into

the Latin writing system and at some point – we are not sure when – were eliminated from the alphabetic series. Sounds that occurred in Latin but not in Etruscan were accommodated by reviving letters Etruscans did not use, e.g., B and D in the case of /b/ and /d/, and O in the case of /ɔ/ and /o:/. Latin scribes expanded the scope of coverage of the vowel letters I, E, A, O, V to include both short and long vowels. (Etruscan vowels were not distinguished by length at the phonemic level.) The letters I and V covered even more phonological territory; they were used to spell /j/ and /w/, the non-syllabic counterparts of the high vowels. This convention, whereby the letters for high vowels also represented the corresponding semivowels, must have had its roots in Etruscan spelling where the letter I stood for both the vowel /i/ and the palatal semivowel /j/. The convention was adopted in Latin for the letter I and was then extended to the letter V. In the *Vetusia* inscription the letter F represents the semivowel /w/. It may well be that the analogical spread of this spelling convention is to be dated to before the last quarter of the seventh century BCE. The earliest example of V with non-syllabic value (/w/) is the verb SALVETOD /salwe:to:d/ "be well" on the *Tita* inscription.[26]

Other changes in orthography took place soon after the writing system was in place. The rule whereby the letters C, K and Q were written based on the following vowel letter caused problems for writers/scribes early on. The requirements of this convention, if followed strictly, would have led to "allo-graphemic" spellings in the paradigms of words whose stems ended in velars. Consider the following paradigms in which the letters C, K and Q alternate depending on the form of the following vowel letter: FHEFHAKAI "made," FHEFHACISTAI, FHEFHACED, FHEFHAQOMOS, etc.; DEIQO "say," DEICES, DEICET, DEIQOMOS, etc. Toward the end of the Very Old Latin period – and perhaps earlier for some writers/scribes – C was selected to stand for /k/ and /g/.[27] The letter K was gradually phased out of use; it survived in the spelling of a few names and a few common lexical items, e.g., *Kaeso* (*praenomen*) and *Kalendae* "Kalends."[28] Q, primarily in combination with V, was assigned the values /k^{w}/ and /g^{w}/, e.g. QVOI "who."[29] Once the letter G was added to the inventory (see below), it was used also as the first part of a digraph to spell the voiced labialized velar /g^{w}/.

Another example of an early change in orthography involved the simplification FH, the digraph that spelled the /f/ phoneme (FHE:FHAKED "made"). No later than the first half of the sixth century BCE H was dropped from this combination, e.g. FECED "made" (Figure 2.4). As a result, the phonological value that F had in Etruscan, namely /w/ (**venel** "Venel" /wenel/), was transformed completely in Latin.[30]

A glaring gap in the spelling of Latin stop consonants was the lack of a letter for the voiced velar /g/. In the third century BCE the letter C was modified by adding a vertical bar to the bottom of its curved stroke thus creating a new letter G (see Figure 2.5).[31] It may have been the invention of the Greek freedman of Spurius Carvilius Ruga.[32] His school would have provided an ideal channel for the dissemination of the letter. But regardless of who was responsible for the letter's invention, it must have been introduced soon after the middle of the third century BCE because it had gained widespread currency by the beginning of the second century BCE.[33]

The letter Z remained part of the alphabetic series until the third century BCE even though it seems to have been used sparingly – if at all – in Very Old Latin and Old Latin inscriptions.[34] In the earliest Latin *abecedarium* (Figure 2.6), which can be dated to the beginning of the third century BCE, Z appears in its proper position following F.[35] The inventor of the letter G was probably also responsible for the elimination of Z from the

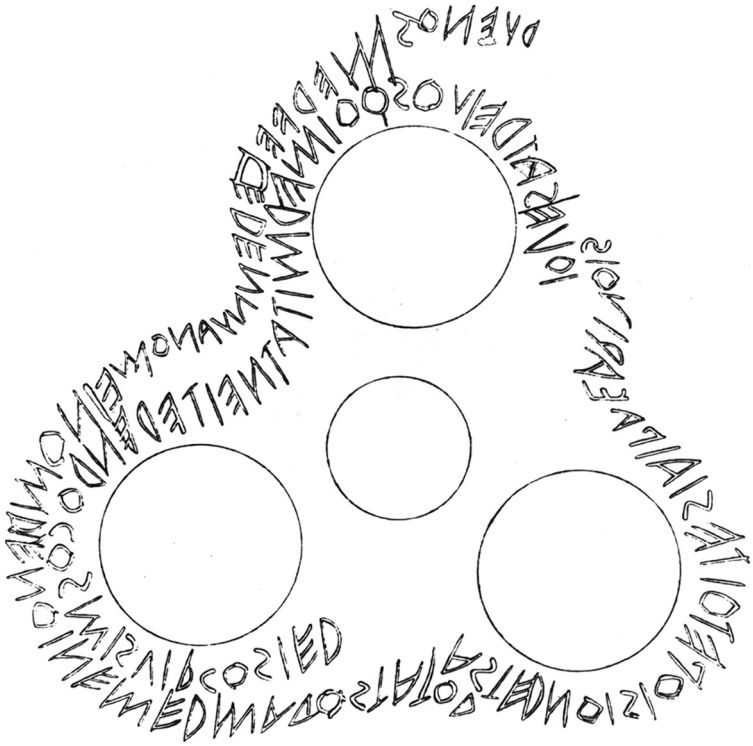

Figure 2.4 Sketch of the *Duenos* inscription showing the letter F in FECED (top left) (*CIL* I².4). Reproduced by permission of The Center for Epigraphical and Palaeographical Studies, The Ohio State University.

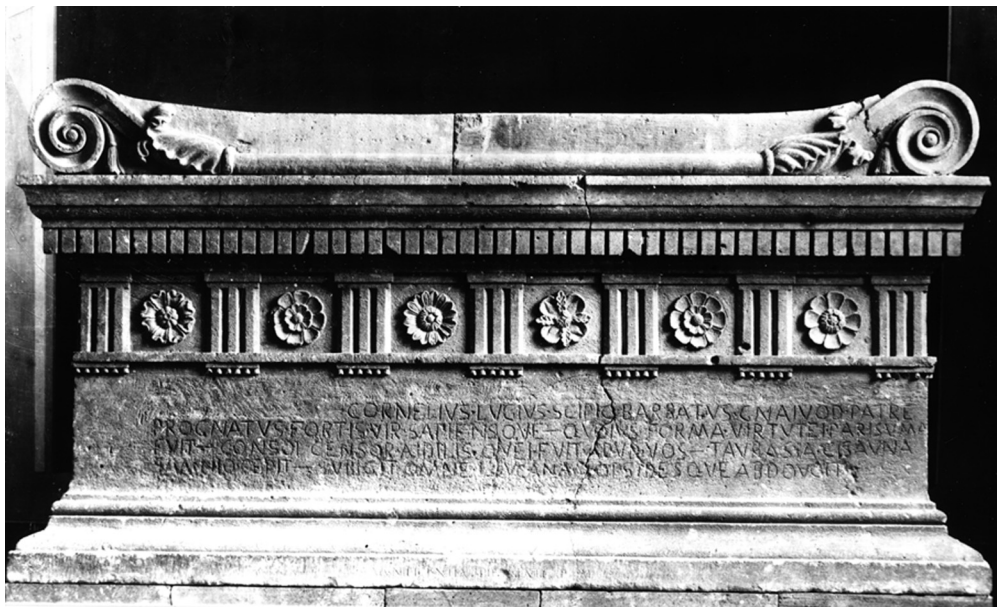

Figure 2.5 Inscription showing the letter G (first word, line 2). Sarcophagus of Scipio Barbatus (*CIL* I².7). Reproduced by permission of The Center for Epigraphical and Palaeographical Studies, The Ohio State University.

Figure 2.6 Latin *abecedarium* incised on ceramic plate, Monteroni di Palo. Drawing by Brigette McKenna. Reproduced by permission of Rex E. Wallace, University of Massachusetts Amherst.

abecedarium. He placed G in the position held earlier by Z presumably because it (Z) was a "dead" letter.

During the first century BCE the Greek letters Y and Z were borrowed (re-borrowed!) in order to represent the sounds /y, ȳ/ and /z/ in ancient Greek loanwords, e.g., (EVRYSACVS *CIL* I^2.1203).[36] When these letters were incorporated into the alphabetic series, they were placed at the end following the letter X.

The last alphabetic reform – though ultimately unsuccessful – was made by the Emperor Claudius (41–54 CE). He introduced three new letters. We know the form of two because they appeared in inscriptions published during his reign as emperor.[37] Ⅎ (reversed, upside-down *digamma*) stood for the semivowel /w/; ⊦ was used in place of the letter *ypsilon* in Greek names. Its phonological value is unclear.[38] A third letter, which is reported to have stood for the cluster /ps/, has not yet been found in an inscription. Its precise form is uncertain; the Latin grammarians cite several possibilities.[39]

Old Latin Orthography

The rules for spelling during the Old Latin period (fourth to second centuries BCE) were different in some respects from the rules of the Classical period. Some differences reflect aspects of Old Latin phonology. For example, in the third century BCE the diphthong /oj/, which was on the way to becoming a simple long vowel /i:/ in word-final position, had reached the stage /e:/ (a bit higher in vowel space than /e:/) and this new sound was variously spelled as EI or E (QUEI, *CIL* I^2.7; PLOIRVME *CIL* I^2.9; FALERIES, Zimmermann (1986)). Some differences in spelling may be attributed to the fact that there was no written norm or standard to which writers, particularly those outside of Rome, might appeal. Other differences arose as writers responded to infelicities that remained in the writing system, most notably the lack of letters distinguishing long and short vowels. Important features of Old Latin orthography are described below.

1 Word-final S and word-final M were not consistently spelled in Old Latin inscriptions, e.g. CORNELIO (*CIL* I^2.8), cf. Classical Latin *Cornelius*; OINO "one," DVONORO "good," OPTUMO "best," VIRO "men," SCIPIONE (*CIL* I^2.9), cf. Classical Latin *unum, bonorum, optimum*, *uirorum*, and *Scipionem*. This spelling reflects the phonological developments of these consonants in word-final environments.
2 N was often omitted before S, e.g., COSOL "consul," CESOR "censor" (*CIL* I^2.8), cf. Classical Latin *consul*, *censor*. Once again this reflects a phonological development.

Nasals were lost before fricatives and the preceding vowel nasalized and lengthened. Even so, the spelling of the nasal consonant was retained in Classical Latin.

3 Latin had phonologically long consonants. They were not spelled as such until the end of the third century BCE.[40] One of the earliest examples, HINNAD, which is found in an inscription that dates to 211 BCE (*CIL* I².608), is a transcription of the Greek toponym Ἕννα. The oldest datable examples of native Latin words with long consonants indicated by double spelling of the consonant letter belong to the early part of the second century BCE, e.g. CAVSSA "for the sake of" (*CIL* I².612, 193 BCE), ESSENT "should be" (*CIL* I².614, 189 BCE). For the next hundred years long consonants were sometimes spelled as such and sometimes not. Occasionally, double writing and single writing of long consonants are found within the same inscription.[41] After 100 BCE double writing became the norm.

4 From the mid-second century BCE the digraphs EI and OV, which earlier spelled inherited diphthongs, spelled the long vowels /i:/ and /u:/ respectively, regardless of their etymological source, e.g. [V]EIVAM /wi:wam/ "living" (*CIL* I².1837), COVRAVERVNT /ku:ra:we:rʊnt/ "oversaw" (*CIL* I².1806).

5 After *c.* 150 BCE the long vowels /i:, e:, a:, o:, u:/ were sometimes spelled by double writing of the vowel sign, so-called *geminatio vocalium*.[42] The earliest example is found on an inscription from the island of Delos, AARAM "altar" (*CIL* I².2238); it is dated to 135/4 BCE. The double writing of long vowels in most instances is limited to the initial syllable of a word, e.g., PAASTORES (*CIL* I².638), though there are exceptions, e.g., ARBITRATVV (*CIL* I².584). The convention is also restricted in large part to the vowel A, though a fair number of examples of E and V are attested. Only one or two cases of double writing of I and O have thus far come to light, e.g., VIITAM (*CIL* I².364), VOOTVM (*CIL* I².365). A large number of words with *geminatio vocalium* are found on inscriptions from areas that were originally Oscan-speaking and it is generally assumed that the Latin convention was inspired by the one used by Oscans.[43]

6 At the close of the Old Latin period the long vowel /i:/ was occasionally spelled by a tall I, the so-called *i longa*, e.g., FELICI *cognomen*, VICVS "village" (*CIL* I².721). The origin of this sign is uncertain.[44]

7 Another strategy for indicating vowel length, the apex, appeared at the end of the Old Latin period. The apex was a diacritic mark of varying shapes – sometimes an acute bar, sometimes a hook – placed over the vowel sign. It is first attested in an inscription dated to 104 BCE (MV́RVM, *CIL* I².679).[45]

8 /h/ was lost between vowels in Latin, but educated speakers continued to write it in intervocalic position, e.g. *veho* /wɛo:/ "transport." On occasion the letter was employed to mark vocalic hiatus. Consider AHENVM /ae:nʊm/ "of bronze" (*CIL* I².581) and AHENA (*CIL* I².2093).

Some Old Latin orthographic practices continued to be used sporadically during the Classical period and beyond. The apex was written in dipinti and graffiti at Pompeii (NERÓNIS, *CIL* IV.3884). The double spelling of vowels may be found as late as 300 CE.[46] Even in the most illustrious of imperial inscriptions, the *Res Gestae* of the Emperor Augustus, one finds examples of the apex, *i longa*, H marking hiatus, and the digraph EI spelling long /i:/, e.g., GESTÁRVUM, (*Res Gestae*, preamble), AHENEIS (*Res Gestae*, preamble), EXPVLI (*Res Gestae* 2), EMERITEIS (*Res Gestae* 16). Other Old Latin spelling practices

Table 2.4 Comparison of archaic Etruscan and Latin letterforms

Archaic Etruscan letterforms		*Archaic Latin letterforms*
A	alpha	A A
—	beta	not attested
C ↄ	gamma	C
—	delta	D
3	epsilon	E
4	wau	F
I	zeta	not attested
B	heta	H H
⊗	theta	—
I	iota	I
K	kappa	K
L	lambda	L
M W	mu	M M
N И	nu	N N
—	omicron	O
1 ⅂	pi	P P
M	san	—
Q	qoppa	Q
D ꟼ	rho	P
≷ ≶	sigma	S ϵ
T	tau	T
Y V	upsilon	Y Y V
X +	xi	+
Φ	phi	—
Ψ	khi	—

became moribund. In public inscriptions issued during the Classical period it was the norm to spell word-final /s/ and /m/. In the case of /s/, the spelling reflected the fact that this sound was analogically restored in most educated varieties of Latin. In the case of /m/, the spelling served as an orthographic feature by which morphological distinctions might be made even though phonologically, word-final vowel + M represented a long, possibly nasalized, vowel.

Letterforms

The style of writing and the shapes of the letters in Latin documents depended on various factors: the medium used to carry the message, the implement used to write it, the occasion for writing, and the skill of the writer/scribe or stonemason. Letters changed their form over time, reflecting the differences between more formal and less formal styles of writing, outside influences, and the personal preferences on the part of writers/scribes and stonemasons.

The shapes of the letters on seventh- and sixth-century Latin inscriptions are in many respects similar to those on Etruscan inscriptions of the same time period (Table 2.4).[47]

Table 2.5 Variation in Very Old Latin letterforms

inscription	*M*	*S*	*V*	*direction*
Fibula	𐌌	𐌔	𐌅	←
Vetusia	—	𐌔	𐌅	←
Tita	—	𐌎	𐌕	→
Vendia	𐌑	𐌔	𐌕	→
Forum	𐌌 𐌌	𐌎	𐌕 𐌅	⇄
Duenos	𐌌	𐌔	𐌅	←
Lapis Satricanus	𐌌	𐌔	𐌅	→
Tibur	𐌌 𐌌	𐌔 𐌎	𐌀	↺
Corcolle	𐌌	𐌔	𐌅	→

Figure 2.7 The Tibur inscription (*CIL* I².2658). Reproduced by permission of The Center for Epigraphical and Palaeographical Studies, The Ohio State University.

They show much the same variation in form as Etruscan letters on inscriptions from Caere and Veii, a fact that may point to continued Etruscan–Latin contact and cross-fertilization.

Table 2.5 is a synopsis of letterforms extracted from Very Old Latin inscriptions. The letters in the table illustrate some of the diversity of form at this early period.

The Tibur inscription stands apart from other Very Old Latin inscriptions in terms of paleography (Figure 2.7). The letters V and L were written upside down. The letter O has the form of a smallish dot. The letter P is like no other in the corpus. It has a snail-like appearance; the vertical bar is missing entirely. The orientation of the letters V and L could be due to the difficulties encountered by the stonemason as he cut the

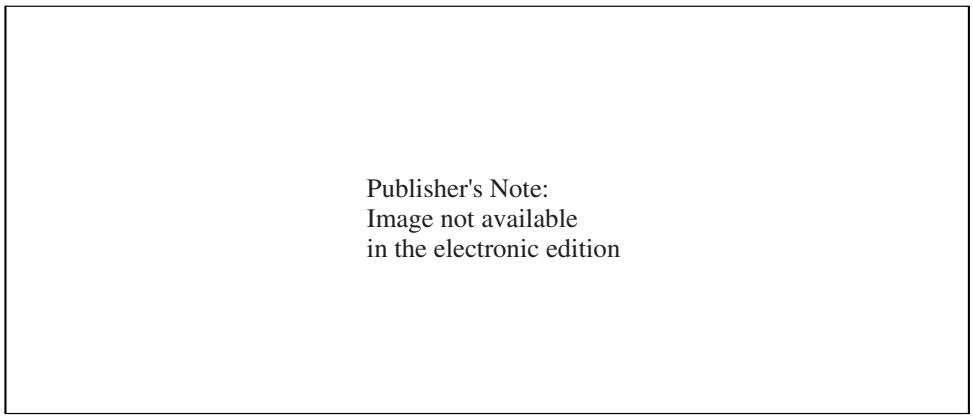

Figure 2.8 Dipinto with cursive E and F on fragment of krater (*CIL* I².358). Reproduced from *La Collezione epigrafica del Museo Nazionale Romano alle Terme di Diocleziano* (Milan, 2001) by permission of the publishers, Mondadori Electa.

inscription in a circle around the side of the pedestal, but O in the form of a dot is unique in Latin. Interestingly, it resembles the form of the O on South Picene inscriptions. Inverted V and L are also found in South Picene. These similarities make it tempting to think that the person who composed the text or the stonemason who incised it was familiar with features of the South Picene orthographic tradition (see also the section on letterforms below).[48]

By the beginning of the fifth century BCE some of the variation in Very Old Latin letterforms was eliminated, perhaps signaling a growing independence from Etruscan writing practices. The letterform Y lost ground to V. ƨ with three bars became the norm; it ceased to be written in retrograde direction. Substantive changes in the forms of some letters also appeared. Five-stroke Ϻ was in competition with a "new" four-stroke version Μ, e.g., *Lapis Satricanus,* Tibur inscription, Corcolle inscription. Ultimately, five-stroke M was ousted by the four-stroke version, but the five-stroke form survived as an abbreviation for the name *Manius* (M', *CIL* I².647).

Changes to the letters P (Ꝑ Ᵽ Ꝓ) and R (Ᵽ) appear to have developed in synch. As the length of the hook of the letter P increased and approached the vertical bar, similarities with the letter R increased. R may have been written with an oblique tail, at first perhaps a very short one (Ꝑ → Ᵽ → Ꝛ), in order to increase its formal distance from P. Fully closed P, which then assumed the form of Very Old Latin R, did not appear in inscriptions until the middle of the second century BCE and is not very common until the imperial period.[49]

Distinctive variants of letterforms developed during the Old Latin period. The most recognizable are the so-called cursive forms of E and F (Figure 2.8).[50] The letter A also developed some striking forms. One such form was written with its medial bar detached from its oblique bars and standing vertical, e.g., Ⱥ. The letters O and Q had variants in which the very bottom of the letter remained open, e.g. Ꝋ. The tail of Q was no longer vertical; it was an oblique bar that shot out from the bottom of the letter in the direction of writing, e.g. Ꝙ. In the hands of some stonemasons it is nearly horizontal.

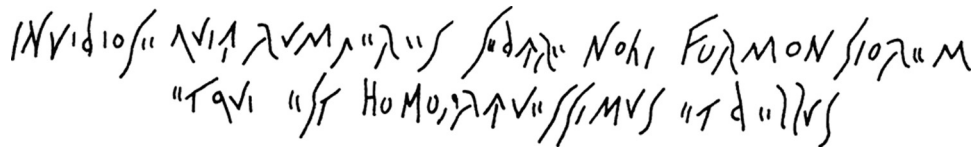

Figure 2.9 Graffito from Pompeii. Drawing by Brigette McKenna. Reproduced by permission of Rex E. Wallace, University of Massachusetts Amherst.

Styles of handwriting developed alongside epigraphic styles and there was some interplay between the two, particularly as regards cursive letterforms.[51] Unfortunately, most handwritten texts were on perishable materials and very little from the republican period has survived.[52] More substantial evidence for the range of styles of handwriting is available from the first three centuries of the imperial period.[53] Several Latin papyri from Herculaneum were written in a style known as the capital; the letters are similar to epigraphic capitals.[54] This script was most suitable for literary papyri. The writing on wax tablets, on the ink tablets from Vindolanda, and on the ostraca from Bu Njem in Libya was less formal.[55] These styles, whether written in ink or incised with a stylus, are usually grouped together under the rubric of Old Roman cursive. The writing of the graffiti from Pompeii and the writing on curse tablets from Rome and elsewhere also belong here (Figure 2.9).[56] The evolution of the letterforms in handwritten styles, particularly the cursive, is more difficult to discern,[57] but the shapes of the minuscule letters that appear in the documents of the early fourth and fifth centuries CE can be traced back to the earliest inscriptions.

Direction of Writing and Punctuation

The earliest Latin inscriptions were written from right to left (*Vetusia* inscription, *Fibula Praenestina* (Figure 2.2)) and from left to right (*Tita* inscription, *Vendia* inscription). Right to left was the standard direction of writing in Etruscan, but left-to-right direction was in vogue for a short period of time at the Etruscan towns of Veii and Caere at the end of the seventh century BCE and this style may have influenced the direction of writing for the Latin inscriptions mentioned above. Two Very Old Latin inscriptions reflect writing practices that may be due to contact with non-Latin writing systems. The Forum inscription was written in a boustrophedon style in which the direction of writing ran alternately from the right and then the left, perhaps in imitation of an Etruscan or Greek model (Figure 2.3).[58] The Tibur inscription was written in a spiral (Figure 2.7). The layout resembles that found on several funerary stelae erected by South Picenes.[59] By the middle of the republican period, however, writers had settled on left-to-right direction as the norm, and almost all Latin inscriptions after this date are written in this manner. Inscriptions in other formats, such as boustrophedon, appear rather infrequently.[60]

Most Latin documents, regardless of type, had very little in the way of punctuation. Very Old Latin inscriptions were often written *scriptio continua*, that is to say, without any word breaks or any punctuation between words, e.g., *Duenos* inscription (Figure 2.4), Tibur inscription (Figure 2.7), *Lapis Satricanus*, Garigliano inscription. In inscriptions

that were punctuated, interpuncts separated words. The most common forms of punctuation in Very Old Latin documents were two or three interpuncts arranged vertically, e.g., two interpuncts: *Fibula Praenestina* (Figure 2.2); three interpuncts: Forum inscription (Figure 2.3), Corcolle inscription, Madonetta inscription. Although punctuation separating words becomes a common feature in Republican Latin inscriptions, it is unusual to find it separating sentences or metrical lines. The dashes that divide the Saturnian lines of the epitaph of Scipio Barbatus (*CIL* I^2.7) are an exception (Figure 2.5). Even more rare is punctuation that separates a document into sections or chapters. The Forum inscription may be unique in this regard, particularly for a Very Old Latin inscription; it appears to have been divided into three units by means of punctuation in the form of circular incisions (Figure 2.3).[61]

In Latin of the imperial period interpuncts were used less regularly to mark the boundaries between words and so writers developed other functions for punctuation. Several notable uses may be illustrated from the Vindolanda writing tablets.[62] For example, interpuncts are occasionally used to group together preposition and dependent adjectives and nouns, e.g. · AD VOCASIVM · (*T.Vindol.* II.315), and to group together verb and following indirect pronoun, e.g. · MISI TIBI · (*T.Vindol.* II.345). The phrases reflect the enclitic character of prepositions and pronominal indirect objects. Of some interest also is the use of interpuncts as clausal dividers. The following are examples of two co-ordinate clauses set off by interpuncts: · NON ṾTṾṆTVR EQVITES · NEC RESIDVNT BRITTVNCVLI (*T.Vindol.* II.164). The features of punctuation described above are found also in ostraca from Wâdi Fawâkir, a Roman military outpost in the eastern Egyptian desert. It appears that soldiers who were trained to write by the Roman military may have been taught similar methods for punctuating texts regardless of where they were stationed.[63]

Abbreviations

One of the most notable features of Latin writing from the third century BCE on is the frequency of the abbreviations. For the most part, abbreviations are restricted to aspects of personal nomenclature, especially the personal or individual name (*praenomen*), e.g., M = *Marcus*, names for familial relationships, e.g., F = *filius*, N = *nepos*, names of months and parts of months, e.g., K = *Kalendae*, SEPT = *Septembris*, and names for political and military offices and titles, e.g. COS = *consul*, IIVIR = *duumuir*, IMP = *imperator*. In some cases, most commonly in lists of consular and triumphal *fasti*, names were abbreviated by omitting the inflectional endings, e.g., Q PETRONI = *Q(uintus) Petroni(us)*. These abbreviations were devised in order to save space and labor, and therefore expense.

Letter Names

The origin of the letter names used by the Romans is a mystery. The evidence is late and not entirely reliable.[64] It is certain, however, that the Etruscans or the Romans (Latins), or perhaps both, made changes to the names for the letters because they no longer resembled their Greek and Phoenician antecedents.

The names for all Latin letters consisted of a heavy syllable, either a long vowel or a syllable closed by a consonant (see Table 2.1). The names for vowels were, as might be expected, the letter itself, e.g. A /a:/. The letter names for stop consonants had CV structure; the default vowel was /e:/, except for the letters K and Q, which were pronounced with the vowels with which they were most often written, namely A and V. The fricatives – with the exception of H – the nasals, the liquid, and the rhotic had VC structure. The name of the letter X /ɛks/ ends in a cluster because Latin phonotactic rules did not permit *ks*– to stand at the beginning of a syllable (word).

The pronunciation of the letter names lies at the heart of an Old Latin spelling convention that is first attested in inscriptions of the third century BCE. This convention, which is known as "syllabic notation" or "abbreviated writing," permits the spelling of a syllable by means of a consonant.[65] For example, the name *Petronius* is sometimes spelled PTRONIO (*CIL* I².239), the pronunciation of the initial syllable being determined by the letter name *pe*. Although there are questions as to the syllables in which this convention may be found as well as to its geographic distribution, it provides some support for the idea that the names of the letters had been reformed by the third century BCE.

Diffusion of the Latin Alphabet

Roman expansion was accompanied by the spread of Latin and the Latin alphabet. The Roman policy of colonization, by which military strongholds and citizen foundations were established in conquered territory, successfully introduced islands of Latin-speaking inhabitants amongst non-Latin-speaking natives. The Latin and Roman *coloni* shared the same political, religious, and legal order; they operated under the same administrative framework. Non-Latin speakers who were admitted into colonial settlements found it advantageous to speak Latin: traders and craftsmen for economic reasons; members of the elite classes for this reason too and for the social advantages that speaking and writing Latin afforded.

The evidence for bilingualism and language shift amongst diverse populations is not sufficient to give us a clear picture of the means by which the Latin language and its alphabet replaced native ones.[66] However, tantalizing pieces of evidence, in the form of bilingual inscriptions and of native Italic inscriptions written in the Latin alphabet, permit us to say that the prestige of Latin must have been such that its alphabet became the alphabet of choice. Oscans in the city of Bantia in the first century BCE incised their civic regulations using a Latin alphabet (*ST* Lu 1 = TB). At roughly the same time Umbrians, who had a century earlier copied the rituals of the Atiedian brotherhood of Iguvium using their native alphabet, now issued a version written in the Latin script (*ST* Um 1 Vb–VII). In Etruria, members of the same family sometimes had their epitaphs incised in Latin, sometimes in Etruscan, depending on whether they wished to highlight their Roman or Etruscan identity. The Latin–Etruscan bilingual epitaph from Pisaurum, which is dated to the beginning of the first century BCE, expresses the subordination of Etruscan visually and linguistically.[67] The Latin inscription was incised in large capital letters across the top of the stone. The Etruscan version was incised in smaller letters beneath the Latin.

In some cases the Latin alphabet was modified in order to bring it into line with other languages' phonological systems. For example, Umbrian scribes who recorded the Iguvine rituals using the Latin script spelled the palatal fricative /ʃ/ by placing a

diacritic in the form an acute bar over the letter S, thus ś. Oscans who wrote the *Tabula Bantina* incorporated a Z into the script, perhaps under Greek influence, in order to spell the medial fricative /z/, e.g. EGMAZUM "affairs." The Roman alphabet, carried by military personnel, traders, and adventurers, penetrated into the alpine regions of northern Italy in the second and first centuries BCE. A bilingual funerary inscription from Voltino (*CIL* V.4883), which was written in Latin and Celtic, illustrates the fascinating phenomenon of mixed alphabets.[68] The Latin text was written with the letter *san* (transcribed as ś) appropriated from the Lugano alphabet. The Celtic text was written in a native alphabet – almost certainly a Celtic one – but several Latin letters are part of the inventory of signs.[69]

During the height of Roman *imperium* Latin was spoken and – more importantly for our purposes – written in Europe, southern Britain, Northern Africa, the Balkan region as far south as Greece, and portions of the Middle East. The results of the spread of the Latin alphabet are with us today in the form of the script used to compose the chapters that make up this volume.

FURTHER READING

The transmission of the Euboean Greek alphabet to Etruscans in Italy is discussed in Cristofani (1972) and (1978b). Wachter (1987) chapter 2 is an in depth discussion of the origin and development of the Latin alphabet. Wachter (1987) chapter 2 also tackles the thorny issue of the relationship between the Latin and Faliscan alphabets. Lejeune (1957) remains a good introduction to the orthographic adaptations and alphabetic reforms made by native peoples of Italy who borrowed the Etruscan alphabet. For the paleography of Very Old Latin inscriptions see Hartmann (2005); for Old Latin see Cencetti (1956–1957). Vine (1993) discusses an array of problems in Very Old and Old Latin paleography and orthography. For an overview of issues and problems with Latin letter names see Gordon (1971).

NOTES

1 I use small capitals to transcribe Latin words cited from the *Corpus Inscriptionum Latinarum* (= *CIL*) and *Inscriptiones Latinae Liberae Rei Publicae* (= *ILLRP*). Latin words from other sources are in italics. I also use small caps when I refer to letters of the Latin alphabet. For the forms of letters, I use an archaic Latin font. Words in native Italic alphabets are printed in bold. Faliscan words are cited from Giacomelli (1963); Sabellic words are cited from *ST*; and Etruscan words are cited from *ET*.

2 For a short but informative survey of fate of the Latin alphabet after the collapse of Roman *imperium* see Sampson (1985) 110–119.

3 See Weiss (2009) 30 and nn. 36 and 37.

4 Ridgway (1992).

5 Bartoněk and Buchner (1995) 204–205 and Watkins (1995a) 38–42.

6 Bietti Sestieri and De Santis ((2000) 53) describe the burial in detail. Compare the discussion in Holloway (1994) 112.

7 See Watkins (1995a) 38–39 for the reading *euḷin* and for the interpretation of the word as an adjective form.

8 The Euboean Greek epigraphic evidence is published in Bartoněk and Buchner (1995).
9 Watkins (1995a) 41–42. Watkins (1976) is a more detailed exposition of the inscription's metrical structure.
10 Cassio (1991–1993) interprets the inscription as Greek, but does not think it is a metrical text. See Watkins (1995a) 44–45 for an analysis of the metrical structure.
11 The transmission of the Euboean alphabet to Etruscans is discussed at length in Cristofani (1972) and (1978a).
12 For the diffusion of the Etruscan alphabet to other peoples of ancient Italy see Cristofani (1972) and (1978b), and Lejeune (1957).
13 See Wachter (1987) 14. Wachter (1989) 29–34 is a discussion of the difficulties involved in determining alphabetic patrimony.
14 There is no evidence for the spelling of the voiced labialized velar /g^w/.
15 For a comprehensive treatment of this topic see Wachter (1987) 14–24.
16 See Gordon (1983) 78.
17 The spelling of velars in the *Duenos* inscription appears to be a development of an earlier spelling system similar to that found on the Forum inscription. The spelling of /k^w/ by means of Q is probably to be seen as a simplification of QV.
18 We might then recognize several sub-systems for the spelling for the velars: (1a): CI, CE, KA, KO, QV (Forum inscription); (1b) CI, CE, KA, QO, QV (*Kavidios* inscription); (2a) CI, CE, CA, CO, Q (*Duenos* inscription); etc. A similar set of sub-systems may be found in Very Old Faliscan inscriptions, e.g., Giacomelli (1963) text 1: **soc[iai]** "friend," **ceres** "Ceres," **arcentelom** "of silver," **porded** "offered," **karai** "dear," **f[if]iqod** "made," **eqo** "I" = CI, CE, KA, QO, (QV); Giacomelli (1963) text 2: **eco** "I," **quton** "drinking cup" = CO, QV; Giacomelli (1963) text 3: **sociai** "friend," **kaios** "Gaius," **kapena** "Capena," **kalketia** "Calcetia" = CI, KA, KE; Giacomelli (1963) text 4: **eko** "I," **kaisiosio** "Caesius" = KA, KO.
19 In south Etruscan inscriptions, primarily those recovered from Caere and environs, the signs spelling the fricative /f/ were frequently written in the order HF, e.g., **θihvaries** "Thifaries" (*ET* Cr 2.7).
20 The spelling FH is found in words incised on two Corinthian vases dated to the first quarter of the sixth c. BCE, one found in south Etruria (!), the other in Attica. Given that the earliest Etruscan examples date to the first quarter of the seventh century BCE (**θavhna** "cup," *ET* Cr 2.5) and the earliest Latin example (FHE:FHAKED "made") to the seventh century I am not inclined to see the Corinthian examples as evidence for the Greek origins of this convention.
21 The language of inscription *REI* 58 from Satricum (La Ferriere) cannot be determined. The text is too fragmentary. But see the short article by Colonna and Beijer (1993) 316–320 who consider the inscription to be Latin.
22 Table 2.3 does not include fragments of inscriptions or *sigla*. See Colonna (1980) 53–69. For the inscriptions in the table see Hartmann (2005).
23 Hartmann (2005) 37–106 provides an extensive discussion of the difficulties presented by these inscriptions. He argues that the *Fibula Praenestina* is authentic and that the *Vetusia* inscription is Latin.
24 For discussion of Etruscan, Latin, Sabellic and Venetic inscriptions incised on *instrumenta domestica* see Agostiniani (1982). Cristofani (1984) examines Etruscan inscriptions on sumptuary objects.
25 See Eichner (1995) for an overview of the linguistic difficulties involved in interpreting this inscription.
26 Earlier examples of the letter V spelling /w/ may be attested in Faliscan (**ui[no]m** "wine," **prauios** "Prauios," **douiad** "give") if Giacomelli (1963) text 1 is to be dated to the middle of the seventh century BCE.
27 In southern Etruria in the second half of the sixth century BCE Etruscan writers/scribes selected *gamma* to spell /k/ and eliminated *kappa* and *qoppa* from the spelling system. It may

be possible to see the selection of C as an areal development encompassing southern Etruria and Latium.

28 The spelling KA is found in Imperial Latin, e.g., KARISSIMO "dearest" *CIL* IX.552 [Aeclanum]; KAPUT "head," *CIL* IX.1175 [Venusia].

29 The spelling QV for /ku/ is found with some frequency in late Republican Latin, particularly in the word for "money," e.g., PEQUNIAM "money," *CIL* I².587; QURA "care," *CIL* I².1202. It is also found sporadically in Imperial Latin texts, e.g., SEQURUM "free from care," Pighi (1964) 42 (*P.Mich.* VIII 468.8).

30 For the simplification of FH to H in Venetic, see Lejeune (1966) 156–163.

31 It is not clear to me that the letter ↄ (reversed C) found in *CIL* I².60 (PRIMO.ↄENIA "Primogenia") is to be seen as an early, but ultimately failed, attempt to spell /g/. Other words in this inscription that have the voiced velar are spelled by means of C (CRATIA /gra:tia:/ "for the sake of"). On the other hand, I find the idea in Giacomelli (1973), that ↄ represented a palatalized /g/, even more problematic, particularly since the phonological distinction, /k/ vs. /g/, was under-represented.

32 See the discussion in Wachter (1987) 324–333.

33 *CIL* I².614 is the oldest securely datable Latin inscription in which G appears (189 BCE). Several words in a Marrucinian inscription (*ST* MV 1) dated to the second half of the third century BCE and written in a Republican Latin alphabet have the letter G (ASIGNAS "uncut portions"?; AGINE "in honor of"?). However, the date of the inscription is based on the shapes of the letters and so must be regarded with some suspicion. In this inscription the letter G has the form of an angled c tilted upward in the direction of writing (<).

34 The letter Z appears in a late seventh-century BCE graffito (ZKA̧) incised on a fragment of ceramic (Colonna (1980) 63, no. 29). It is possible, as Colonna suggests, that Z was a substitute for S in this graffito. The statements of Varro and several late Roman grammarians do not shed any light on the status of the letter Z in Latin (see Weiss (2009) 28, n. 22). The appearance of the letter Z in ZENATUO (*CIL* I².365) is due to interference from Faliscan orthography.

35 The *abecedarium* was incised in dextroverse direction on a plate found at Monteroni di Palo near the Etruscan city of Caere. The alphabet is a "reformed" type. The "dead" letters for the aspirates (*theta*, *phi*, and *khi*), for *samek*, and for *san* have been eliminated from the script.

36 See Perl (1971).

37 See Gordon (1983) 116–17 (no. 41) and 118 (no. 43) for *digamma inuersum*. Photographs are published in Plate 27, nos. 41 and 43.

38 Oliver (1949) 249–253. Velius Longus (*GL* VII.75) says that the letter represented the so-called "intermediate" vowel, but there is no evidence to support this suggestion.

39 Oliver (1949) 253–254.

40 The name COTTAS (gen. sg.), with double spelling of T, is found on an inscription from Sicily (*ILLRP* 1277). The Cotta of this inscription is usually identified as Aurelius Cotta, consul in 252 and 248, but the inscription may not be as early as some have speculated. See Perini (1983) 148 for discussion.

41 Some examples of variation in double vs. single writing of long consonants may be due to issues of spacing and line placement. See, for example, *CIL* I².614, in which geminate consonants are consistently spelled, save for POSEDISENT, which is at a line end and may have single spelling because of lack of space.

42 The honor of introducing this convention into Latin is usually given to Accius (see Velius Longus, *GL* VII.55.25–6), but Quintilian (*Inst.* 1.7.14) indicates the usage is older.

43 For the latest treatment see Vine (1993) 267–286.

44 According to Oliver ((1966) 159) the earliest example is EIVS, which is found on *CIL* I².585, an inscription dating to 111 BCE. In this example, however, *i longa* stands for a long consonant /ɛjjʊ̄s/. Oliver's hypothesis about the origin of the letter does not convince (see Oliver (1966) 162–163).

45 Oliver (1966).
46 Weiss (2009) 29 cites the word VII from *CIL* III.4121 [Pannonia] as a late Imperial Latin example, but I am not sure that this reading is correct.
47 See Urbanova (1999 for the paleography of the letters in the oldest inscriptions.
48 For the letterforms on South Picene inscriptions see Marinetti (1985) 47–54. For the form of the letter O, see p. 54.
49 An early example of a fully closed P is found in *CIL* I².626. The date is 144 BCE.
50 See Cencetti (1956–1957) 190–194.
51 See Cencetti (1956–1957) 190–194 and Bischoff (1990) 54 for the use of the cursive letters E and F in inscriptions. Sometimes, the forms of the letters found in advertisements and election-notices, such as those recovered from Pompeii, were imitated by engravers working in stone or metal (Bischoff (1990) 55). *CIL* X.797 [Pompeii] is a good example. The inscription dates to the Claudian period.
52 A few Pompeian graffiti, some curses on lead plaques, and some papyri from Herculaneum belong to the end of the republic. See Fox (1912) for late republican *tabellae defixionum* in the collection at Johns Hopkins University. Kleve (1994) 317 is a list of papyri from Herculaneum of republican date.
53 See the short discussion of handwriting on Latin papyri by Cavallo (2009).
54 See Bischoff (1990) 55–63 and Kleve (1994) 315, 317. Sample scripts are published in Bischoff (1990) 64 and Kleve (1994) 316.
55 For the wax tablets from Pompeii and Dacia see *CIL* IV and *CIL* X. For the tablets from Vindolanda see Bowman and Thomas (1983) 32–45.
56 The paleography of late republican *tabellae defixionum* in the collection at Johns Hopkins University is discussed in Fox (1912) 51–54. Plate VIII is a comparison of the cursive styles in Late republican and early imperial documents (graffiti, papyri, wax tablets, lead plaques).
57 It is interesting to note that even the Romans had difficulties reading the cursive style. The title character in Plautus' *Pseudolus* makes light of the handwriting in a letter by saying that it appears to have been written by a hen (*an, opsecro hercle, habeat quas gallinae manus? nam has quidem gallina scripsit* "Seriously, does a hen have hands? No doubt a hen wrote this (letter)." (Pl. *Ps.* 28–29)).
58 See Vine (1993) 41–50.
59 South Picene inscription *ST* TE 2 is probably the closest in terms of layout (Marinetti (1985) 203–208). For discussion of the layout of inscriptions see Marinetti (1985) 57–58.
60 See *CIL* I².5.
61 See Vine (1993) 41–50.
62 See Adams (1996).
63 Adams (1996) 210.
64 The evidence for the Latin letter names is discussed in Gordon (1971).
65 For syllabic punctuation in Old Latin see Vine (1993) 323–344.
66 Adams (2003a).
67 Lejeune (1962).
68 See Adams (2003a) 70–74 for inscriptions written with letters from two alphabets.
69 Since the letter *san* is found in a non-Latin name, it is possible that the letter was used in the Latin epitaph to spell a sound not found in Latin. For discussion of the Voltino bilingual see Eska and Wallace (forthcoming).