

Latin pronunciation

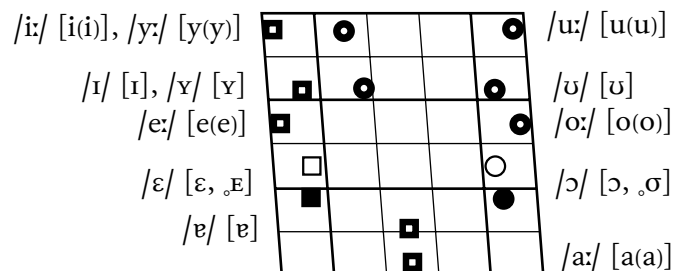
(from ancient to ‘modern’)

Luciano Canepari – © 2018

1. Vowels & diphthongs

- i* (ĭ) /ɪ/ [ɪ], /CɪV/ [CɪV] CiV, /VjV/ [VɪjV] ViV, /#jV/ [#jV] #iV ²
 (ī) /i:/ [ii(C/V), ˙i] ¹
- e* (ĕ) /ɛ/ [ɛ, ˙ɛ]
 (ē) /e:/ [ee(C/V), ˙e] ¹
- a* (ă) /ɐ/ [ɐ]
 (ā) /a:/ [aa(C/V), ˙a] ¹
- o* (ŏ) /ɔ/ [ɔ, ˙ɔ]
 (ō) /o:/ [oo(C/V), ˙o] ¹
- u* (ŭ) /ʊ/ [ʊ], /CʊV/ [CʊV] CuV ³
 (ū) /u:/ [uu(C/V), ˙u] ¹
- y* (ÿ) /ʏ/ [ʏ] ⁴
 (ȳ) /y:/ [yy(C/V), ˙y] ^{1, 4}
- ei* /ɛɪ/ [ɛɪ, ˙ɛɪ] ⁵
ei (eī) /ɛi:/ [ɛi, ˙ɛi]
- eu* /ɛʊ/ [ɛʊ, ˙ɛʊ] ⁵
- ae* (æ) /ɶɛ/ [ɶɛ] ⁵
- au* /ɶʊ/ [ɶʊ] ⁵
- oe* (œ) /oɛ/ [oɛ] ⁵
- ou* /ɔʊ/ [ɔʊ, ˙ɔʊ] ⁵
- ui* /ʊɪ/ [ʊɪ] ⁵

fig 1. Classical Latin vowels.



¹ There is a phonetic difference in length between stressed ([˙]) and unstressed long vowels ([˙]): *ara* (abl.) /aːraː/ [ˈaːraː], cf *ara* (nom.) /aːrɐ/ [ˈaːrɐ].

fig 2.1. Classical Latin diphthongs.

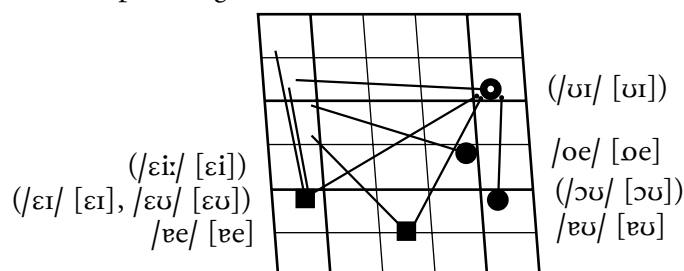


fig 2.2. Classical Latin diphthongs: colloquial variants.

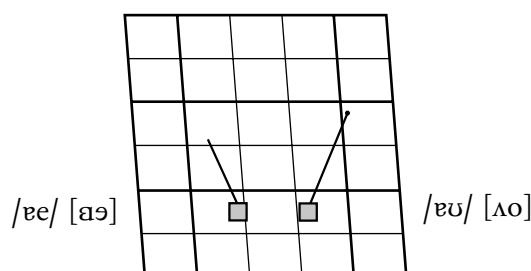
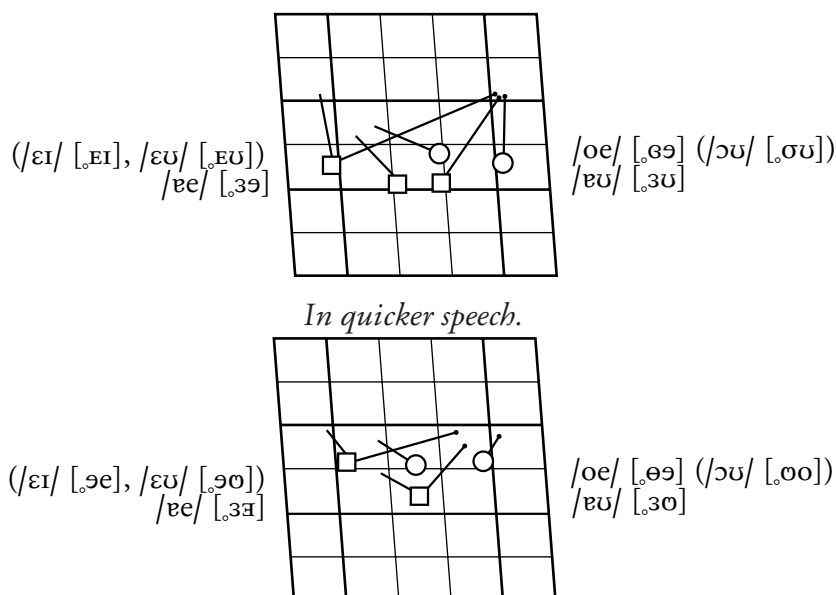


fig 2.3. Classical Latin diphthongs in unstressed syllables (including quicker speech variants).



² *Audio, peius (pejus), etiam, iam (jam)* /'vʊdiɔː, 'pɛiɟʊs, 'ɛtiəm, 'jɛm/ ['vʊdiɔ, 'pɛi-ɟʊs, 'ɛtiɛ̃, 'jɛ̃ɛ̃]. For metrical reasons, certain dictionaries and grammars, unfortunately, mark as 'long' the *short vowels* that precede *iV*, which –in reality– are /'VɪjV/ ['VɪjV], eg *pēiūs*.

³ *Puer, puella* /'pʊɛɪ, pʊ'ɛllə/ ['pʊɛɪ, pʊ'ɛllə]. But *quV, nguV* are /kw, ngw/ [k̟, ŋ̟, k̟̠, -g̟̠] (fig 6).

⁴ Rounded, generally used in Greek loans, and appear in the vocogram boxes just to the right of those of /i, ɪ/ [ii, ɪ].

⁵ There occur various vowel sequences, which are true phonetic diphthongs, even if phonemically we prefer to consider them simply as sequences, just like consonant sequences.

fig 3. Classical Latin nasalized vowels.

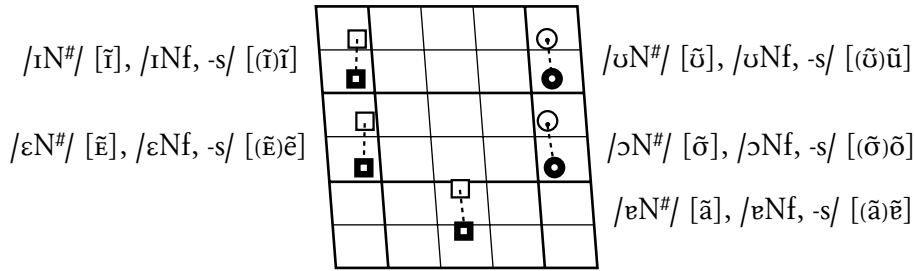
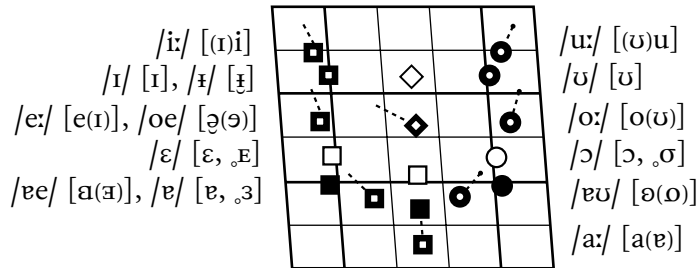


fig 4. Rural/popular Latin vowels & diphthongs (with no /y:, ʏ/, but with /ɥ/ [ɥ]).



The two more frequent sequences (in lexemes) are: *au* /*ɐʊ*/ [ɐʊ] and *ae* (*æ*) /*ɐe*/ [ɐe] (which is derived from archaic *ai* /*ae*/ [ɐe]; quite frequent as desinential grammeme); *oe* (*œ*) /*oe*/ [oe] is rare; while *ei* /*ei*/ [ei], *eu* /*eu*/ [eu], *ui* /*ui*/ [ui] are decidedly rarer; even more so are *eī* /*ei:*/ [ei:], *yi* /*yi*/ [yi], and *ou* /*ɔʊ*/ [ɔʊ], which only occurs lexically in the conjunction *prout*, although in phono-texts we also find *-o V-*, /*o:#V*, *ɔ:#V*/. We can even find triphthongs formed by *-ae + V-* /*ɐe:#V*/, provided there are neither interruptions, nor stress increases on the initial vowels.

In cases like *aes*, *aeris* we have /*ʰæs*, *ʰæris*/ [ʰæs, ʰæris] (*æs*, *æris*, short diphthongs), while *aer*, *aeris* (often indicated as *aër*, *aëris*), are, instead, /*ʰæɛɪ*, *ʰæɛɪs*/ [ʰæɛɪ, ʰæɛɪs] (long diphthongs), from Greek *ἀήρ*. Also: *poena* /*ʰpoenɐ*/ [ʰpoenɐ] (short diphthongs), but *poema*, *poematis* (or *poëma*, *poëmatis*) /*ʰpɔ'e:mɐ*, *ʰpɔ'e:mɛtɪs*/ [ʰpɔ'e:mɐ, ʰpɔ'e:mɛtɪs] (hiatuses) from Greek *ποίημα*. We also have cases like *aunculus* /*ɐ'ʊŋkʊlʊs*/ [ɐ'ʊŋkʊlʊs] (from *avunculus* /*ɐ'wʊŋkʊlʊs*/ [ɐ'wʊŋkʊlʊs]).

fig 4 includes the possible alternative /*ɥ*/ phoneme, which could occur, before /*m*, *p*, *b*, *f*/ or after /*w*/, in words like *optimus*, *manipulus*, *libet*, *pontifex*, *virtus*.

fig 5. Classical Latin consonants, with taxophones, & popular/rural variants between ().

	bilabial	labiodental	dental	dentovelar	alveolar	alveovelar	prepalatal	palatal	postpalatal	prevelar	velar	prevelolabial	velolabial	laryngaeal
Nasal	m [m]		[n]	n	[ɲ]		[ɲ]	[ɲ]	(ɲ)	[ŋ]	[ŋ]			
Stop	p b		t d					(c ɟ)	[k g]	k g	[k̟ ɡ̟]	[k̟ ɡ̟]		[ʀ]
Constrictive	(ɸ β)	f	s [z]-(ð)						(ʃ)	(ʒ)	(ʒ)			
Approximant					(z)			j					w	h [ɦ]
Tap					r									
Lateral			[l]	[ɭ-ɭ]	l	[ɭ]-(ɭ)	[l]							

2. Consonants (here shown in alphabetical order, but see fig 5)

<i>b</i>	/b/ [b] ⁶
<i>c, k</i>	/k/ [k] ⁷
<i>ch</i>	/kh/ [kh] ⁷
<i>d</i>	/d/ [d] ⁶
<i>f</i>	/f/ [f]
<i>g</i>	/g/ [g, g̃], /gN/ [ŋN, ŋ̃N] <i>gn, gm</i> ⁸ , and <i>ngu+V</i> /ngw/ [ŋġ, ŋġ̃] ¹³
<i>h</i>	/h/ [h/h̃] ⁹
<i>l</i>	/l/ [l], /lV/ [lV] <i>lV</i> , /l [#] / [l [#]] <i>l[#]</i> , /lC/ [lC] <i>lC</i> , /ll/ [ll] <i>ll</i> ¹⁰
<i>m</i>	/m/ [m], /Vm [#] / [ṼṼ [#] , Ṽ [#]] <i>-Vm</i> ([#] , V-), /N([#])C/ [N≡C] <i>m([#])C</i> ¹¹
<i>n</i>	/n/ [n], /VnC/ [VN≡C] <i>VnC</i> , but /Vnf, -s/ [ṼṼf, Ṽf, -s] <i>Vnf, Vns</i> ¹²
<i>p</i>	/p/ [p] ⁷
<i>ph</i>	/ph/ [ph] ⁷
<i>qu</i>	/kw/ [k̃, k̃̃], and <i>ngu+V</i> /gw/ [ŋġ, ŋġ̃] ¹³
<i>r</i>	/r/ [r], <i>rh</i> /r(h)~(h)r/ ¹⁴
<i>s</i>	/s/ [s], [z] + /b, d, g/; <i>b, d, g</i> , but not before /m, n, r, l/ <i>m, n, r, l</i> ^{15, 16}
<i>t</i>	/t/ [t], <i>tiV</i> /tiV/ [tiV] ⁷
<i>th</i>	/th/ [th] ⁷
<i>v</i>	/w/ [w]
<i>x</i>	/ks/ [ks] ¹⁷
<i>z</i>	/z/ [z] ^{18, 19}

⁶ /b, d/ become /p, t/ [p, t] when followed by voiceless consonants: *urbs, obtusus, adpatruus* /'ʊrps, ɔp'tʊsʊs, ɛt'pɛtrʊs/ [ʊrps, ɔp'tʊsʊs, ɛt'pɛtrʊs], except for insistentzce. Of course, we have *x* /ks/ [ks], *ie* 'cs', as in *rex* /'rɛks/ [rɛks]. In sentences, *ab, sub, ad* assimilate to following consonants, according to usual word formation rules (nowadays, crystallized in the current spelling of Latin texts).

This produces geminates, in fluente speech, with the possibility to keep their place of articulation before other stops or nasals. However, voicing is lost before voiceless consonants: *ad portas* /ɛp'pɔrtas, ɛt'p-/ [ɛp'pɔrtas], *ad quem* /ɛk'kwɛm, ɛt'kwɛm/ [ɛk'kwɛm], *sub monte* /sʊm'mɔntɛ, sʊb'm-/ [sʊm'mɔntɛ], *sub die* /sʊd'diɛ, sʊb'd-/ [sʊd'diɛ], *sub fine morbi* /sʊff'iɛ 'mɔrbi/ [sʊff'iɛ 'mɔrbi].

⁷ 'Aspirated' voiceless stop, actually the sequence /kh/ [kh], mainly in Greek loans, as a phonostyleme (for φ, θ, χ). Of two adjoining 'aspirated' stops, the first one loses its 'aspiration': *phthisis* /ph'thisis/ [p'thisis].

⁸ In clear and precise pronunciation, /gN/ (*ie* /g/ + nasal) can be [gN]. The highly controversial matter about [ŋn] and [gn], for *gn*, is simply a tiny realization difference for /gn/. In fact, even in word-initial position in a phrase, we have [ŋn]: *tibi gnarigabo* /tibiɣna:ri'ga:bo:, tibi:/ [tibiŋnari'gaabo, tibi-]. In addition, any form with *gn-* are mainly archaic: *nosco* /'no:sko:/ [noosko] (← *gnosco*) –including the name *Gnaeus* /g'næus/ [g'næus] – or, in any case, with variants in *n-*: (*g*)*naritas* /g'nari'tas/ [(g)'naaritas], thus also [tibi'nari'gaabo, tibi-]. We equally have *tegmen* /'tɛgmɛn/ [tɛŋmɛn], or [tɛgmɛn] for insistence (more systematically so in rural and popular speech). For *ngu* see *g* and *qu*.

⁹ Rather weak, even in preclassical age, and not rarely voiced; between vowels, by then = /θ/: *nihil* /'ni:l/ ['niɪʃ, 'nɪɦɪʃ], *mihi* /'mi:i, 'mi:/ ['mi, 'mii].

¹⁰ Thus, velarized alveolar lateral, /l/ [ɫ], before a pause or a consonant. But /ll/ [ʃl] and /li:, li, li/ [ʃi(i), ʃɪ, ʃj]. Up to the end of the preclassical age, [ɫ] also occurred before non-front vowels (including /e, a:/), as shown by *famulus* /'fæmʊlus/ [ʃfæmʊlus] or *simulare* /sɪmʊ'la:ɾe/ [sɪmʊ'laaɾɛ] (vs *familia* /fə'mɪliə/ [ʃfə'mɪliɛ] or *similis* /'sɪmɪlis/ [ʃsɪmɪlis]) where, by assimilation, the vowels which preceded [ɫ] had become back ones.

¹¹ *Word-finally*, either before a pause or a vowel beginning a following word, *m* simply nasalizes the vowels, [ɪ, ɛ, ɛ̃, ɔ, ʊ], by lengthening them into narrow closing diphthongs if stressed, [ɪ̃, ɛ̃, ɛ̃, ɔ̃, ʊ̃]. Let observe: *pulchrum est* [pʊʃkhr̥ʊst], *pulchra es* [pʊʃkhr̥ɛs].

When final before a consonant, *m* behaves as /n^(#)C/: [m] + /p, b, m/; [n] + /t, d, n/; [ŋ] + /k, g; kw, gw/ ([ḳ, ɡ̣]). But, *m* is dropped, while nasalizing a preceding vowel, when followed by /j, w, h/ (even [ʔ] by emphasis). When followed by /f, s/, before /r, l/, it is either dropped nasalizing the vowel, or completely assimilated. Let us just consider a couple of examples: *cum grano salis*, *cum libro* /kʊn'ɡra:nɔ: 'sɛlis; kʊllɪbro:, kʊm'lɪbro:/ [kʊŋ'ɡraano 'sɛlis; kʊʃlɪbro, kʊ'lɪbro].

Word-internal *m* is kept, becoming homorganic to a following consonant: *quamquam* /'kwɛnkwɛm/ [ḳwɛŋḳɛ̃], *omnis* /'ɔnnɪs/ [ʃɔnnɪs]. In our phonemic transcriptions, we simplify a bit, using /Vm/ for nasal(ized) vowels, [Ṽ]. The same is done for /kw, gw/ [ḳ, ɡ̣; ɡ̣, ɡ̣].

¹² Alveolar before a vowel, but homorganic to a following consonant, except for *nf* and *ns*, where nasalization (as in the preceding case) and lengthening occur, in stressed syllables: *confero*, *constans*, *constantis*, *mens*, *mentis* /'kɔnfɛrɔ:, 'kɔnstɛns, kɔnstɛntɪs, 'mɛns, 'mɛntɪs/ [ḳɔ̃ɔ̃fɛrɔ, ḳɔ̃ɔ̃stɛ̃s, ḳɔ̃stɛ̃ntɪs, 'mɛ̃ɛ̃s, 'mɛ̃ntɪs].

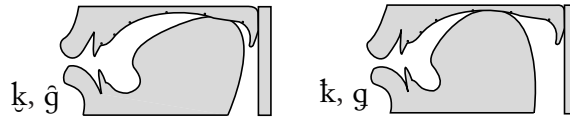
(Traditionally, for metrical reasons –by forcing things, given the very limited written possibilities–, this fact is shown as /V:/, but also keeping *n*: **cōnfērō*, **cōnstāns*, **cōnstāntīs*, **mēns*, *mēntīs*. This lets people think we may have *['koomfɛrɔ:, 'koonstaans, koonstɛntɪs, 'meens, 'mɛntɪs], where excessively long vowels, in unstressed syllables, are clearly surprising, at least in everyday language.

In word-final position, in phrases with *in*, *non*, we find that *n* /n/ assimilates not only to stops and nasals, but also to /j, w/ [ɲj, ɲw] (including /ni(ɔ), nɪ, ɲj/ [ɲi(i), ɲɪ, ɲj], word-internally, in popular and rural speech). However, it does not assimilate before /r, l/, as –on the contrary– it does in word-internal position. Anyway, in popular and rural speech, such assimilations were frequent, if not normal, even before word-internal /r, l/.

Before a vowel, *n* remains /n/ [n], although it is not resyllabified with it, when stress is present: *in agrum* /ɪn'ɛɡrʊm/ [ɪn'ɛɡr̥ʊ] (not *['ɪnɛɡr̥ʊ]).

¹³ Labio-(pre)velar stops (cf 6): voiceless, *qui* /'kwɪ:/ [ḳ'ki:], or voiced, *languor* /'lɛŋɡwɔ:r/ [lɛŋɡ̣ɔ̃r]; /gw/ [ɡ̣] occurs only between /n/ and vowels different from /u/. However, in rural and popular speech, /kw, gw/ [ḳ, ɡ̣; ɡ̣, ɡ̣] were practically replaced by /k, g/ [k, g] (including [ḳ, g̣], and even [c, ɟ], before front vowels, in addition to /gm/ [gm, gm]).

fig 6. Velolabial & prevelolabial stops [k̠, ɡ̠; k̠, ɡ̠] /kw, gw/.



¹⁴ Generally, alveolar tap, [r], both in stressed and unstressed syllables, with the possibility of either ‘aspiration’ [rh], or ‘preaspiration’ [hr], for *rh*, ρ, in Greek loans, as a phonostyleme.

¹⁵ *Disgregatio*, *Lesbos* /dɪsgɾɛˈɡa:tɪoː, ˈlɛsbos/ [dɪzɡɾɛˈɡaatio, ˈlɛzbos]; but *disiungo* (*disju-*), *asma* /dɪsˈjʊŋɡoː, ˈaːsmə/ [dɪsˈjʊŋɡo, ˈaasmə].

¹⁶ Obviously, *sc* is always /sk/ [sk, sk̠]: *scio* /ˈskɪoː/ [ˈsk̠ɪo]. In rural speech, /s/ before any /C/ tended to become [ʃ, ʂ; ʒ, ʒ̠].

¹⁷ The change from /ks/ to /gz/ for *exV-* /ɛksV-/ [ɛksV-] decidedly belongs to periods after the classical age, while the change of (initial) *x-* /ks → s/ happened even later than in classical age, thus, it is equally a non-neutral peculiarity.

¹⁸ It generally occurs in Greek loans, as a phonostyleme (for ζ). Since, in addition to [z], it also had further possible variants, [zz] and [dz] (not [dʒ], stopstricative), it is hardly surprising that in verse it could ‘lengthen syllables’.

¹⁸ In addition to what already indicated above, in *popular* and *rural* speech, any voiceless simple consonants, between any voiced phones (either vocoids, or contoids), tended to become lenis, [ç̠], or half-voiced, [ç̠]. Furthermore, again popular and rural speech, between vowels, often had the continuous contoids shown between () in the table of consonants, including [z] for /r/ and [ɹ] for /l/ [ɫ].

Let us observe that /ph, th, kh/ [ph, th, kh, kh/ are phono-stylemes for Greek loans with original φ, θ, χ /ph, th, kh, kh/. In popular or rural speech they were replaced by plain /p, t, k/ [p, t, k, k̠, c].

Furthermore, [ɹ] could freely occur before vowels in word-initial position, after pause or in stressed syllable, especially for emphasis. Let us add that words like *suavis*, *suesco* and *Suetonius* were generally treated differently in current language and in verse. In fact, /#swV-/ [swV-] were often changed into [sʊV-] for metrical reasons.

3. Length and stress

Length is phonemic both for the vowels, as already seen, and for the consonants, also combined together, especially for the vowels with different timbres: *venit* /ˈwɛnɪt/ [ˈwɛnɪt] ‘he/she/it comes’ vs *venit* /ˈwɛːnɪt/ [ˈweenɪt] ‘he/she/it came’ «venne», *populum* /ˈpɔpʊlʊm/ [ˈpɔpʊlõ] ‘people’ vs *populum* /ˈpoːpʊlʊm/ [ˈpoːpʊlõ] ‘poplar’, *malum* /ˈmɛlʊm/ [ˈmɛlõ] ‘bad’ vs *malum* /ˈmaːlʊm/ [ˈmalõ] ‘apple’; *male* /ˈmɛlɛ/ [ˈmɛlɛ] ‘badly’ vs *malle* /ˈmɛllɛ/ [ˈmɛɫɛ] ‘to prefer’, *sumus* /ˈsʊmʊs/ [ˈsʊmʊs] ‘we are’ vs *summus* /ˈsʊmmʊs/ [ˈsʊmmʊs] ‘supreme’.

The short vowels, either stressed or not, are as shown in the vocogram (let us notice a tiny timbre change for [ˈɛ, ɔ] → [ˌɛ, ˌɔ]). In stressed syllables, either free or

checked, the long vowels are phonetically narrow monotimbric diphthongs, /V:/ [VV] [VVC]: *stella* /'ste:lla/ [ˈsteeɫə] (even if directly followed by vowels: *aer* /'a:ɛr/ [ˈaaɛr]).

However, in everyday spoken language, unstressed /V:/ (either in free or checked syllables) are realized as short vocoids, [̥V]: *stella* /'steɫla:/ [ˈsteeɫla]. But, let us notice very carefully that they keep their original timbres, [i, e, a, o, u; y].

In classical Latin, *stress* depends on the length of the *penultimate syllable* of a word, according the length of its vowel. If the vowel is *short and either in a free syllable, or followed by another vowel*, stress is shifted to the preceding vowel, ie the antepenultimate (or third last, or last but two): *cupido* ‘wishful’ (dat./abl.) /'kʊpido:/ [ˈkʊpido] and *cupido* ‘desire’ (nom.) /kʊ'pi:do:/ [kʊ'piido]; *democratia* (nom.) ‘democracy’ (δημοκρατία) /de:m'krɛtiə/ [ˌdemɔˈkrɛtiə], and *viginti* ‘20’ /wi:ginti:/ [wiˈɡɪnti].

Thus, when the penultimate vowel is long ‘by nature’, as in *cupido* [kʊ'pi:do], or ‘by position’ (ie ‘by convention’!), as in *viginti* [wiˈɡɪnti], it carries (intensive) stress (not a pitch one any longer, as it possibly was in archaic Latin).

Of course, the artistic metrical reading, accompanied by string music, is quite another thing in comparison with *true* language. In fact, it is artificially done in its rather unnatural way, which has its ‘deserving’ counterpart in the unnaturalness of singing, especially opera singing.

Let us notice well that *iV-* (as already seen above) has a consonantic function, /j/ [j]. Thus, we have *iugum* (or, better, *jugum*) [ˈjʊgʊ] /ˈjʊgʊm/ (certainly not */ʊgʊm/). Come to think of it, as the use of *u* /ʊ/ [ʊ] and *v* /w/ [w] have already been commonly distinguished, it would be better to also systematically use *j*, instead of *i*, in *iV-* and *ViV* /jV, VjV/ [jV, VjV] (the famous letters of Petrus Ramus, Pierre de La Ramée, 1515-1572). The provided examples should be carefully considered.

Here are some special cases of seeming ‘irregular’ stress patterns. So we have the *dropping of a final vowel*: *educ(e)* /eːˈdu:k/ [eˈduuk], *illic(e)* /ɪˈli:k/ [ɪˈliik], *addic(e)* /ædˈdi:k/ [ædˈdiik], *adhuc(e)* /ædˈhu:k/ [ædˈhuuk, ædˈh-].

We can also find the *contraction* of some phonemes into just one: *Mercuri(i)* /mɛrˈkʊri:/ [mɛrˈkʊri] (different from the vocative *Mercuri* /ˈmɛrˌkʊri:/ [ˈmɛrˌkʊri]), *Valeri(i)* /vɛˈlɛri:/ [vɛˈlɛri] (voc. *Valeri* /ˈvɛlɛri:/ [ˈvɛlɛri]), *consili(i)* /kɔnˈsɪli:/ [kɔˈsɪli], *imperi(i)* /imˈpɛri:/ [imˈpɛri], *irritat* (from *irrita(v)it*) /ɪrriˈtɑt/ [ɪrriˈtaat], different from *irritat* (present) /ɪrˈri:tɛt/ [ɪrˈriitɛt], *disturbat* (from *disturba(v)it*) /dɪstʊrˈbɑt/ [dɪstʊrˈbaat], different from *disturbat* (present) /dɪstʊrˈbɛt/ [dɪstʊrˈbɛt], *munit* (from *muni(v)it*) /mʊˈni:t/ [mʊˈniit], different from *munit* (present) /ˈmuːni:t/ [ˈmuunɪt].

We also find cases of *oscillation*, depending on whether composition or dropping are more or less evident (including the very origin of certain names) as in: *satin* /səˈtɪn ~ ˈsɛtɪn/ [səˈtɪn ~ ˈsɛtɪn] (from *satisne* /səˈtɪsnɛ/ [səˈtɪsnɛ]), *sicin* /siˈkɪn ~ ˈsiːkɪn/ [siˈkɪn ~ ˈsiikɪn] (from *sicine* /siˈki:nɛ ~ ˈsiːki:nɛ/ [siˈki:nɛ ~ ˈsiikɪnɛ]), *viden* /wɪˈdɛn ~ ˈwɪdɛn/ [wɪˈdɛn ~ ˈwɪdɛn] (from *videsne* /wɪˈdɛsnɛ/ [wɪˈdɛsnɛ]), *tanton* (from *tantone* /tɛnˈto:nɛ/ [tɛnˈtoonɛ]) /tɛnˈto:n ~ ˈtɛnto:n/ [tɛnˈtoon ~ ˈtɛnton], *nos-*

tra(ti)s /nɔs'tra:s ~ 'nɔstras/ [nɔs'traas ~ 'nɔstras], *deinde* /'dɛɪndɛ ~ dɛ'ɪndɛ/ ['dɛɪndɛ ~ dɛ'ɪndɛ].

Names: *Camillus* /kə'mɪllus ~ 'kɛmɪllus/ [kə'mɪʃlus ~ 'kɛmɪʃlus], *Cethegus* /kɛ'the:gʊs ~ 'kɛthe:gʊs/ [kɛ'theegʊs ~ 'kɛthe:gʊs], *Maecenas* (from *Maecena(ti)s*) /mæ'ke:nas, mæke:'nas/ [mæə'keenas, mæke:'naas], &c.

Also Greek words and names oscillate, if they maintain their original forms: *satrapen* /'sɛtrɛpɛ:n, sɛ'trɛpɛ:n/ ['sɛtrɛpen, sɛ'trɛpen], *Acarnan* /ɛ'kɛrnɑ:n, ɛkɛr'nɑ:n/ [ɛ'kɛrnɑn, ɛkɛr'naan], *Cleopatra* /klɛ'ɔpɛtrɛ, klɛ'ɔpɛtrɛ/ [klɛ'ɔpɛtrɛ, klɛɔ'pɛtrɛ]. Notice that the 'normal' syllabication for clusters of a consonant followed by /r, l/, is /#CC/, while with /m, n/, we have /C#C/. However, for metrical reasons, things could be forced to also produce /C#r, C#l/.

Furthermore, we have to consider the effect of the enclitics *-ce, -ne, -ve, -que, -dem, -met, -nam, -te, -cum*, and *quidem*, which attract stress to the preceding syllable (with possible oscillations): *musaque* /'mu:sɛkwɛ, mu:'sɛkwɛ/ ['muusɛkɛ, mu'sɛkɛ], which is not at all confused with *musaque* (abl.) /mu:'sa:kwɛ/ [mu'saakɛ] not even when stress coincides.

In addition, *utraque* /'u:trɛkwɛ, u:'trɛkwɛ/ ['uutɛkɛ, u'tɛkɛ], equally different from *utraque* /u:'trɛkwɛ/ [u'traakɛ], *illene* /ɪ'llɛnɛ, ɪ'lɛnɛ/ [ɪʃlɛnɛ, ɪʃlɛnɛ], *loquive tacereve* /lɔ'kwɪwɛ tɛ'kɛ:rɛwɛ, lɔ'kwɪrɪwɛ tɛkɛ:rɛwɛ/ [lɔ'kɪwɛ tɛ'keɛrɛwɛ, lɔ'kɪwɛ tɛkɛ'rɛwɛ], *egomet* /'ɛgɔmɛt, ɛ'gɔmɛt/ ['ɛgɔmɛt, ɛ'gɔmɛt], *tu quidem* /'tu:'kwɪdɛm, 'tu:kwɪdɛm/ ['tu:'kɪdɛ, 'tu:kɪdɛ].

The following words are felt to be unitary words (thus, with /\$\$\$\$/): *alicubi, sicubi, necubi, equidem, identidem, utinam, utiquem, undique, itaque* 'therefore'.

But we have: *itaque* 'and so' (ie *et ita*) /ɪ'tɛkwɛ, ɪ'tɛkwɛ/ [ɪ'tɛkɛ, ɪ'tɛkɛ], and *pone* 'behind' /pɔ:nɛ, pɔ:nɛ/ [pɔonɛ, pɔ'nɛ] (but *pone!* –imperative– /pɔ:nɛ/ [pɔonɛ]).

Compound verbs with *-do, -fit* have two stress possibilities (although the 'regular' one is less favored): *circumdo* /kɪr'kʊm'dɔ:, -'dɔ; kɪr'kʊmd-/ [kɪr'kʊm'doo, -'dɔ; kɪr'kʊndo, -ɔ], *satisdo* /sɛtɪs'dɔ:, -'dɔ; sɛ'tɪsd-/ [sɛtɪz'doo, -'dɔ; sɛ'tɪzdo, -ɔ] (also *satis do*), *pessumdo* /pɛssʊm'dɔ:, -'dɔ; pɛssʊmd-/ [pɛssʊm'doo, -ɔ; pɛs'sʊndo, -ɔ] (also *pessundo, pessum do*), *arefit* /a:rɛ'fɪt, 'a:rɛfɪt/ [a:rɛ'fɪt, 'a:rɛfɪt], *madefit* /mɛdɛ'fɪt, 'mɛdɛfɪt/ [mɛdɛ'fɪt, 'mɛdɛfɪt].

Concerning verbs with *-facit*, we only have *arefacit* /ɛrɛ'fɛkɪt/ [ɛrɛ'fɛkɪt], *madefacit* /mɛdɛ'fɛkɪt/ [mɛdɛ'fɛkɪt]. In fact, their 'normalized' forms would have been: **arefacit* /a:rɛ'fɪkɪt/ [a:rɛ'fɪkɪt], **madefacit* /mɛdɛ'fɪkɪt/ [mɛdɛ'fɪkɪt].

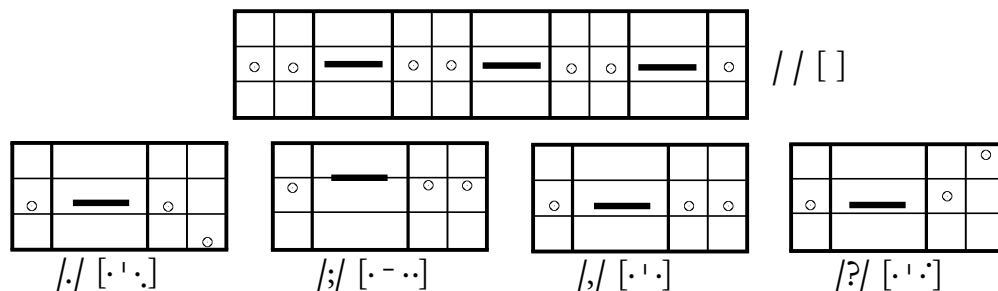
There are further possible oscillations, in sentences, in cases like: *apud me* /'ɛpʊd 'mɛ:, ɛ'pʊdme:/ ['ɛpʊd 'mee, ɛ'pʊdme, 'ɛpʊm 'mee, ɛ'pʊmme], *pater mi* /'pɛtɛr 'mi:, pɛ'tɛrmi:/ [pɛtɛr 'mii, pɛ'tɛrmi], *morem gerit* /'mo:rɛm 'gɛrɪt, mo:'rɛm'gɛrɪt/ ['mo:ɔrɛŋ 'gɛrɪt, mo:'rɛŋ'gɛrɪt], *operam dare* /'ɔpɛrɛm 'dɛrɛ, ɔpɛ'rɛm'dɛrɛ/ ['ɔpɛrɛn 'dɛrɛ, ɔpɛ'rɛndɛrɛ].

Most of us, at school, will have carefully 'learned' *unicuique suum* as **/u:nɪkʊ'ɪkwɛ 'sʊm/* 'may all get their due', while its true realization is */u:nɪ'kʊɪkwɛ 'sʊm/* [u:nɪ'kʊɪkɛ 'sʊɔ], with the diphthong *ui* /'uɪ/ [ʊɪ]. Let us add an observation about *exiguitas*, which has to be pronounced /ɛksɪ'gʊɪtɑ:s/ [ɛksɪ'gʊɪtas], not **/ɛk'sɪ'gʊɪtɑ:s/* [ɛk'sɪ'gɪtas]; in fact, /gw/ [g] only occurs after /n/ [ŋ].

4. Intonation

The following intonation patterns are based on reliable deductions, going backwards, from Romance results to the original language, favoring nearby territorial realities, let us complete this concise outline of Classical Latin pronunciation, by also providing possible intonation patterns. They can safely be accepted as plausible and utilizable, with no real problems, nor strained interpretations.

fig 7. Classical Latin intonation patterns.



5. Text

Here is the Aesopian fable, in Latin. Let us pay particular attention to: *circumdabat* /kɪr'kundəbet/.

Olim inter se Aquilo et Sol uter fortior esset certabant, cum viatorem quendam paenula amictum procedentem conspexerunt; atque ipsorum fortiolem existimandum esse consenserunt, qui efficeret ut viator ille paenulam deponeret.

Aquilo autem vehementissime furere coepit; sed, quo fortiores flatus emittebat, eo artius se circumdabat paenula; tandem, viribus destitutus, propositum suum omisit. Tum Sol caelum clarissima luce illustravit; mox vero viator, calore victus, paenulam exiit. Itaque Aquilo, quamvis invite, confessus est solem esse fortiolem.

Tibi placuit fabula? Libetne eam repetere?

Academic Italian pronunciation

[ˈɔːlim· ɪnter'se·] 'aːkwilo· et'sɔːl· | 'uɪtɛr· ˈfɔːrtsjɔr· ɪ'esːset· | tʃɛrtabant· | kumviatɔːrem· ˈkwɛndam· | ɪ'pɛnula· a'miktum· | ɪ'prɔtʃɛ'dɛntem· | kɔnspek'sɛ:runt· | atˈkwe· | ip'sɔːrum· ˈfɔrtsjɔrem· | egzisti'manːdum· ɪ'esːse· | kɔnsen'sɛ:runt· | ˈkwi· λeffitʃɛrɛt· | utˈviator· ɪ'ɪlːɛ· | ˈpɛnulam· de'pɔːneret· ||

'aːkwilo· ɪ'atɛm· | ˈveemɛntɪssɪmɛ· ˈfʊrɛrɛ· | ɪ'tʃɛpɪt· | 'sɛdː· kwɔfɔrtsjɔres· ˈflatus· ɛmitˈtɛbat· | ɛo'arɪtsjus· viator· ʃɛtʃɪr'kumːdabat· ˈpɛnula· | ˈtanːdem· ɪ'vɪrɪbus· ɛstɪˈtʊtus· | ɪ'prɔːzɪtʊm· ɪ'suːm· | o'mɪzɪt· || ɪ'tum· | ˈsɔːl· | ˈtʃɛːlum· ɪˈkla'rɪssɪma· ɪˈluːtʃɛ· ɪllus'travɪt· | ˈmɔks· ɪ'veɪro· | viator· ɪˈkaːlɔ're· ˈvɪktʊs· | λ'pɛnulam· λ'ɛgzɪwɪt· || ɪˈɪtakwe· 'aːkwilo· | ɪ'kwamvɪs· ɪmˈvɪtɛ· | kɔm'fɛsːsus· ɪ'esːt· | λ'ɔːlem· ɛsɛfɔrtsjɔrem· |||

ɔ'tɪbɪ ˈplakwɪt· ɔ'fabula· ɔ'libɛtne ɛamrɛ'pɛɪtɛrɛ· |||] .

Classical pronunciation

[ˈooli̯ ˌɪntɛɾˈseeː] ˈɛkʲilo ɛtˈsoot̪ | ˈʊtɛɾ ˈfortiɔɾ ˌɛsɛt̪ | kɛɾˈtaabɛnt̪ː | kɔ̃wiaˈtooreŋ
 ˈkʲɛndɛ̃ | ˌpʁɛnʊla ɐˈmiktumˌ | ˌpɾɔkɛˈdɛntɛ̃ː | kɔ̃spɛkˈseerʊnt̪ | ˈɛt̪kʲɛː | ɪpˈsoorũ ˌforti-
 ˈoorɛ̃ː | ɛkˌsɪstɪˈmɛndõ ˌɛsɛː | kɔ̃sɛ̃ˈseerʊnt̪ | ˈkʲii ˌɛffɪkɛɾɛt̪ | ˌʊtwɪˈaatɔɾ ˌɪɦlɛː | ˌpʁɛnʊ-
 lɛŋ ˌdɛˈpooneɾɛt̪ː ||

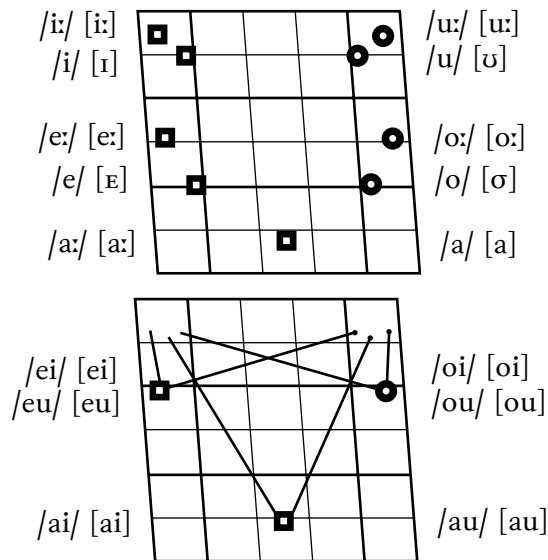
ˈɛkʲilo ˌɛʊtɛ̃ː | ˌweemɛnˈtɪssɪmɛ ˈfoʃɛɾɛː | ˌkoepɪt̪ˌ | ˈsɛt̪ ˌkoˌfortiˈoores ˈflaatus ˌɛ-
 mitˈteebɛt̪ˌ | ɛoˈɛrtɪʊs ˌwɪˈaatɔɾ ˌsɛkɪɾˈkʊndɛbɛt̪ ˌpʁɛnʊlaˌ | ˈtɛndɛ̃ ˌwiirɪbʊs ˌdestɪ-
 ˈtuutusˌ | ˌpɾoˈpɔsɪtũ ˌsʊõˌ | ˌσˈmiisɪt̪ˌ || ˌtũ ˈsoot̪ː | ˈkɛelʊŋ ˌklaˈrɪssɪma ˈluukɛˌ | ˌɦlus-
 ˈtraawɪt̪ˌ | ˈmɔks ˌweeroˌ | ˌwɪˈaatɔɾ ˌkɛˈloore ˌwɪktʊsˌ | ˌpʁɛnʊlɛ̃ː | ˌɛksʊɪt̪ˌ || ˌɪt̪kʲɛː ˈɛ-
 kʲiloː | ˌkʲɛŋwɪs ɪŋˌwiiteˌ | kɔ̃ˈfɛssʊs ˌɛst̪ˌ | ˌsoolɛ̃ ˌɛsɛɛˌfortiˈoorɛ̃ː ||

ˌɪt̪ɪbr̪ˈplɛkʊɪt̪ˌ ˌfaabʊlɛ | ˌɦɪˈbɛtɪɛ ˌɛ̃ɛɾɛˈpɛtɛɾɛː ||] .

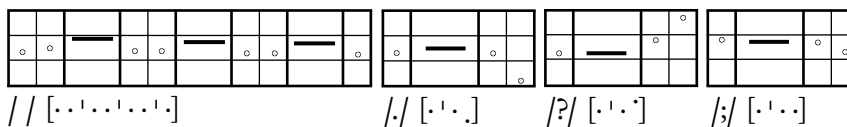
6. *Old Latin*, or *Archaic Latin* (Italic, IE), had five vowels, both short and long, which were phonetically nasalized before /NC, N#/ (where N is a nasal), their timbres remaining unaffected and the nasal being preserved, even before constrictives, with [n≡C]. It also had six diphthongs and length opposition for the consonants.

There were no Greek phonostylemes yet, but there was *z* /VzV/ [VzV], which later became *r* /r/ [r, z], or *Vs#* /Vh/ [Vh], eg *flozis* ['fɫozzih] (later *floris*); also, *gn* /gn/ [gn]. The phoneme /l/ was [ɫ] before pauses, or consonants (including heterosyllabic /j/, /C#j/), or before back V (including /a, a:/), but [l] before tautosyllabic /j/, /#Cj/), or before front V; in addition, /kw, gw/ [k̥, ɡ̥, ḳ, ɡ̣].

fig 8. Old/Archaic Latin.



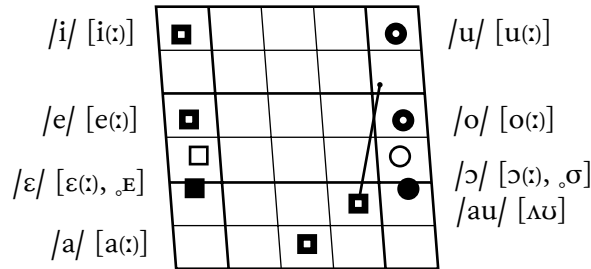
m	[n]	n	[ŋ]	[ŋ]
p b	t d		[k g]	[ḳ ɡ̣] [k g] [ḳ ɡ̣]
φ β	s z			
	[z]	j		w h
	r-[l]	ɫ		



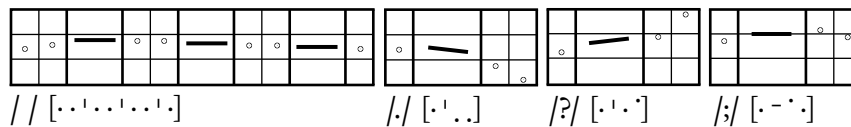
7. *Vulgar Latin*, or *Empire Latin* (Italic, IE), in its *neutral* form stemming from the central area of Italy, had seven short vowels and only one traditional diphthong, /au/ [ΛU]; all vowels were phonemically short, being phonetically lengthened in stressed free syllables. Consonant gemination was distinctive.

Many words had different stress-patterns from those they had in Classical Latin, eg *filiolum* /fr̥liolũm/ → /fr̥ljɔlum/ (and unstressed e, u/o followed by a vowel became /j, w/, as well), *integrum* /'intɛgrũm/ → /ɪn'tɛgrũm/, *decadit* /'de:kadɪt/ → /de:kadɪt/. It had /VnC/ [Ṽn≡C]), but /VN/ [Ṽ] + /f, s/, and /V#/ [V] (for vowel + final -m, where vowel timbres were unaffected); h had gone to 'zero' by this stage, even in *ch, th, rh* (while *ph* had become /f/). Also notice: *f, v, z, gn* /f, v, z, gn/ [ɸ, β, z, gn]. In central Italy, /n, t, d, s, r, l, k, g/ + /j, i, e, ε/ developed to [ɲ, t̚, d̚, s̚, r̚, l̚, k̚, g̚] (without absorbing the [j]) by gradual adjustments, like [tj, dj, cj, ʝj] → [t̚sj, d̚sj, k̚sj, g̚sj] → [t̚s̚, d̚s̚, k̚s̚, g̚s̚].

fig 9. Vulgar/Emperial Latin.



m	[ɱ]	n	[ɲ]	ɲ	[ŋ]	[ŋ]
p b	t d		[t̚ d̚]	[c ʝ]	[k̚ g̚]	k g
ɸ β	s [z]		[ʃ]			
		r-l	[ɾ]	[ɾ-ʝ]	j	w



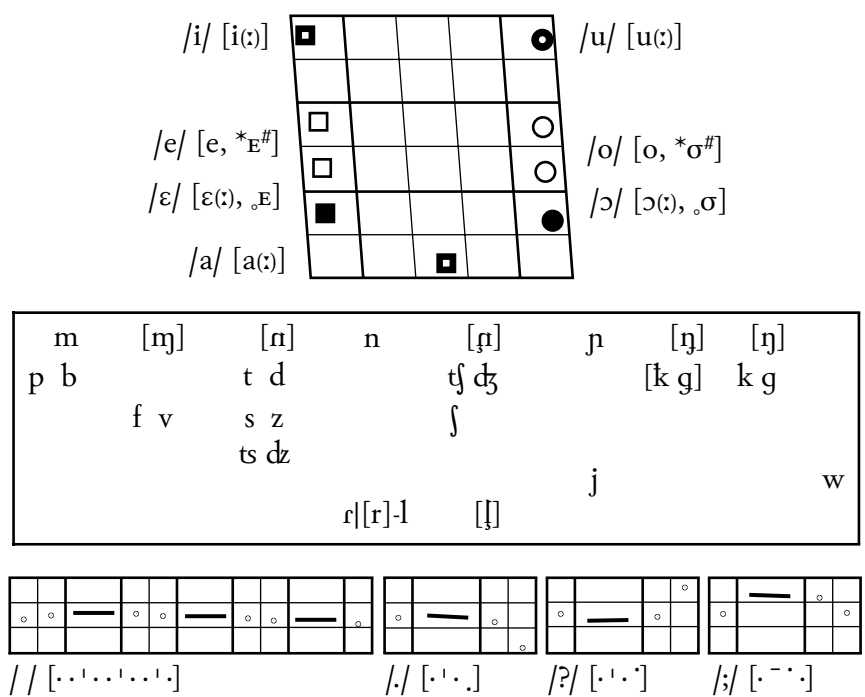
8. *Italian Academic Latin* (Italic, IE) came to have only five vowels in stressed position, /i, ε, a, ɔ, u/, eg even *habēre* or *Rōma* became /a'βere, 'rɔma/ [a'βɛ:re, 'rɔ:ma] (in spite of Italian *avere* [a've:re], *Roma* [ro:ma]). Similarly to Italian, in unstressed syllables only /e, o/ [e, o] occurred, with intermediate timbres, [ɛ, ɔ], as a result of vowel adjustments of either half-opening (for /e|, ɔ|/) or half-closing (for de-stressed /°ε, °ɔ/), which is typical of neutral Italian pronunciation.

Length and the various vowel sequences also correspond to those found in neutral Italian, although with *ae, oe* /'ɛ, °ε, ɛe/. It preserves CC, [n≡C], but /mC/ [mC]; it rigorously has VsV /VzV/; z is /dz/, and tiV (with unstressed i) is /tsjV/, eg *ōtium* [ˈɔts:tsjum*] (the example shows both self-gemination, shared by /dz/, /ʃ/, *piscem* [ˈpiʃ:ʃɛm*], and /r/, *lignum* [ˈliŋ:rɯm*], and audible release, even for /m#/), as can be seen). For c, g, before front vowels, we have /tʃ, dʒ/: *Cyrus* [ˈtʃi:rus], different from *Chiron* [ˈki:ron].

Let us observe that the transcritioin given in § ***, accurately and clearly follows what we have just said, in spite of cases like *habēre* and *Rōma* seen above. Unfortunately, however, Italian speakers, even university Latin teachers, too often, pronounce Latin not exactly as it should be, according to what we have just said, but by mortifying its pronunciation with regional habits, both for the phonemes and intonation (including, often, stress and intonation patterns).

On the other hand, instead of (or in addition to) regional ‘deviations’, too many Italian speakers also introduce, more or less frequently, even ‘neutral Italian deviations’, which are clearly contrary to the cryterion accurately established above. Of course, it might be surprising to actually say [a'βɛ:re, 'rɔ:ma], but Italian Academic Latin *is* another language, clearly different from both Classical Latin (cf § 1-5) and its most direct ‘offspring’, ie the current Italian language.

fig 10. Italian Academic Latin.



9. *Church Latin* or *International Latin* (Italic, IE), is similar to Italian Academic Latin, and in fact it should be pronounced exactly like it. However, in Vatican City, it is used by both Italian and foreign churchmen, friars, and monks. So, it undergoes several different interferences, not only by regional Italian accents, but also by different languages and their several regional accents, also including many different habits in speaking more or less different Academic Latins for each foreign language. Thus, the ideally expected 'pure' pronunciation is very rarely heard, as for Italian Academic Latin, too, as just seen.

fig 11 shows a more 'international' version of the vowel situation, especially as far as the *e*, *o* vowels are concerned, with less different timbres. Of course, the consonants should be realized as shown, for Italian Academic Latin, shown in fig 10, but, in reality, more or less systematically, the following (and other) 'deviations' certainly occur, unfortunately.

As for the *vowels*, of course, the exact timbres for *i*, *e* (including *ae*, *oe*), *a*, *o*, *u*, correspond to those used in the different languages, with more or less different results. Thus, Romance and Slavic languages usually have (excepting greater and even worse differences): /i/ [i, ɪ], /ɛ/ [ɛ, ɛ̃, e], /a/ [a, ɐ, A], /ɔ/ [ɔ, ɔ̃, o], /u/ [u, ʊ]. G(erm.) generally has /i/ [i(ː), ɪ], /ɛ/ [ɛ(ː), ɛ(ː), e(ː)], /a/ [a(ː), A(ː), a(ː)] (even ɒ(ː)), /ɔ/ [ɔ(ː), ɔ(ː), o(ː)], /u/ [u(ː), ʊ] (adding *oe* [øː, œ] G.).

Not surprisingly, English can have the strangest possible realizations: /i/ [ii, iɪ, ɪ; aɪ, ɑɪ, eɪ], /ɛ/ [ɛ, ɛ̃, e, ɛɪ; ii, iɪ], /a/ [a(ː), ɑ(ː), ɐ, ʌ; æ, ɛɪ], /ɔ/ [ɔ(ː), ɔ(ː), o(ː), ɒ; ɑ, σɔ, ʒɔ], /u/ [uu, ʊu, ʊ; ɐ, ʌ, jʊu, jɪu].

As for the *consonants*, let start with *c* before front vowels (including *ae*, *oe*): [tʃ, tʃ̥] I., R(oum.), [s, ʃ] F., P., Ca(tal.), also [θ] Sp., [ts] G. & Sl., [s] E.; *ch*: [k], including E., but [x] G. & Sl.; *g*: before front vowels (including *ae*, *oe*): [dʒ, dʒ̥] I., R. (& E.), [ʒ, ʒ̥, ʒ̃, dʒ, dʒ̃] F., P., Ca., [x, χ, h] Sp., [g, ɡ] G., Sl.; *gn*: [ɲ(ɲ)] I., [ɲ] Ca., [gn, ɲ] P., F, [gn] R., E., [ɣn] Sp., [gn] Sl., [gn, ŋn] G.; *h*: [θ] 'zero' I., R., Sp., P., F., Ca., [x, h] Sl., [h] G., [h, θ] E.; *j/i*: [j] I., R., Sl. G., [ʒ, ʒ̥, ʒ̃] F., P., [dʒ] E., [j, j̥] Sl., G., [x, χ] Sp.; *qu*: [kw] I., E., [kw, k] P., Sp., [k] Ca., [kw, kv] R., [k, kw, eɥ] F., [kv] Sl., G.; *sc* before front vowels (including *ae*, *oe*): [ʃ(ʃ̥)] I., [stʃ̥] R., [s, ʃ] P., [s] F., E., [s, ʃ̥, sθ] Sp., [sts] Sl., G.; *ti* + unstressed vowel: [tsj] I., [tsj, sj] R., [sj] P., F., Ca., [sj, θj] Sp., [tsi] G., [ʃi] E.; *v*: [v] I., R., P., F., [β, b] Sp., Ca., Sl., G., [v, w] E.; *x*: [kstʃ̥, kstʃ̥] I., R., [ks] Ca., E., [ksts] Sl., G., [gz, ks] F., [s, sθ] Sp., [s, ʃ, ʃ̥] P.

Of course, also intonation patterns vary a lot, as even stress patterns although trying to follow 'known' instructions.

fig 11. Church/International Latin.

