Luciano Canepari

# Greek Pronunciation & Accents Modern & Ancient

*Geo-social Applications of the Natural Phonetics & Tonetics Method*

## 2020 – *Lincom*

# 6.
# Greek vowels

**The vowels of *international* Greek**

6.1. As *fig* 6.1.1 shows, we only have five vowels, well distinguished, and with no phonemic length. Their timbres are the same in stressed or unstressed syllables,

*fig* 6.1.1. International Greek vowel vocogram (& diphthongs, also monotimbric ones, although rare).
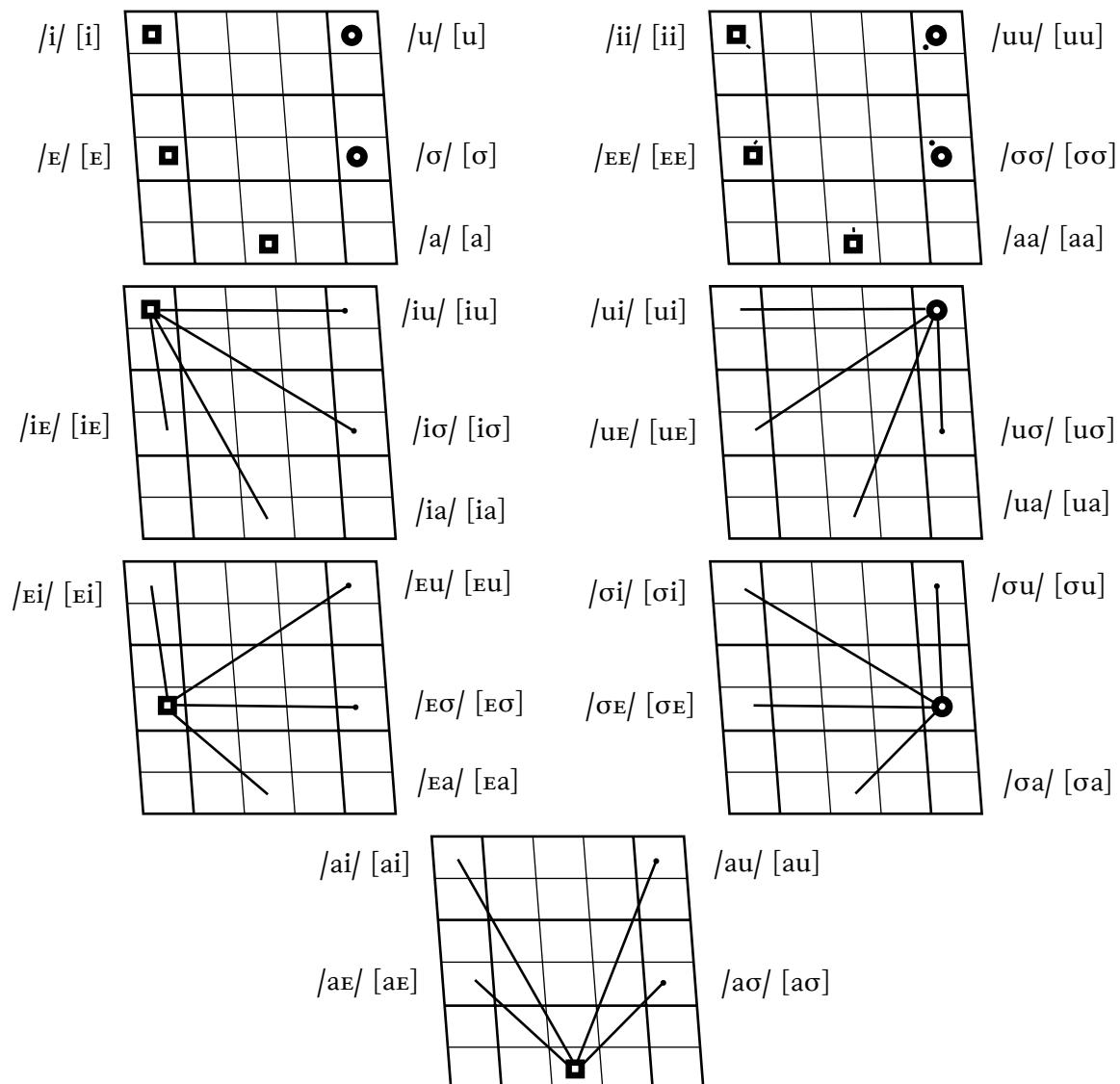
as generally presented in usual 'descriptions' (which are clearly too simplistic). However, for practical communication, in international Greek, it is quite sufficient. *fig* 6.1.2-4 show their orograms, labiogram, and palatograms.

Let us pay particular attention to the vocalic symbol [σ], and to the consonantal grapheme ⟨σ⟩ that we slightly differentiate, although more often they may be identical ⟨σ⟩. Back to our vowel symbols, we have:

/i/: σπίτι [sˈpiˑti], αλήτης [aˈliˑtis], διαλύω [ðiaˈliσ],

/ɛ/: τέλος [ˈtɛˑlσs], καιρός [ceˈrσs], ευγενείς [ˌɛvɟɛˈnis],

/a/: σάλα [ˈsaˑla], καλά [kaˈla], μάλαμα [ˈmaˑlama],

/σ/: λόγος [ˈlσɣσs], το δώρο [tσˈðσˑrσ], όμικρον [ˈσˑmikrσn],

/u/: ούζο [ˈuˑzσ], κουλούρι [kuˈluˑri], του παιδιού [ˌtupɛˈðju].

6.2. All Greek vowels can occur in clusters of two (or three) phonic elements. Of course, they form true diphthongs when they have either the pattern /ˈVV/ [ˈVV, ˌVV] or /VV/ [˳VV], *ie* with (primary or secondary) stress on the first element, or with no stress at all.

Examples, /iV/: ταμίες [taˈmiɛs], τρία [ˈtria], άγρια [ˈaɣria], ιατρείο [jaˈtriσ], Μή-δεια [ˈmiˑðja], λείος [ˈliσs], ιωση [ˈiσsi], αύριο [ˈaˑvriσ], θείους [ˈθius], ιουλος [ˈiuˑlσs], ιουνιανά [ˌjunjaˈna] (or [iˌuniaˈna], in 'careful' or traditional accents).

Let us notice well that /iV/ of traditional pronunciation, or of very careful neutral speech, readily becomes /jV/ (rather than /ɟV/) in international, or colloquial neutral, or mediatic accents (although extremely oscillating between the two possibilities, for both words and speakers, except, perhaps, for loanwords, even if ancient ones, as Ιούλιος [iˈuˑlios, ˈjuˑʎos], Ιούνιος [iˈuˑnios, ˈjuˑɲos]).

In addition, here are further examples of true diphthongs (*cf fig* 6.1.1 & § 6.7): /ɛV/: λέει [ˈlɛi], κλαίει [ˈklɛi], τρόλεϋ [ˈtrσˑlɛi], νεαρός [nɛaˈrσs], λέω [ˈlɛσ], πλέω [ˈplɛσ], καίουν [ˈcɛun]; /aV/: τσάι [ˈtsai], πάει [ˈpai], αύλος [ˈailσs], αϊτός [aiˈtσs], αε-ρίζω [aɛˈriˑzσ], χάος [ˈxaσs], ουάου! [ˈwau, uˈau]; /σV/: ρολόι [rσˈlσi], μοιρολόι [ˌmi-rσˈlσi], νοερός [nσɛˈrσs], προαγογός [ˌprσaɣσˈɣσs], χρισοχόου [ˌxrisσˈxσu], σώους [ˈsσus]. And: /uV/: ακούει [aˈkui], που επιστατή [ˌpuɛpistaˈti], που ασκεί [puasˈci; pwas-], του ονόματος [tuσˈnσˑmatσs; twσ-]…

While identical vowels between words (/V#V/) usually shorten to a simple [V], let us notice carefully what happens within words: ζώο [ˈzσσ], υιικός [iiˈkσs], ποι-ιτής [piiˈtis], βε(ε)λζεβούλ [vɛ(ɛ)lzɛˈvul], as a loan, or Ναυσικά(α) [ˌnafsiˈka(a)], as a classical name. Also notice: του ουρανού [ˌturaˈnu], only in very slow speech, [ˌtu-uraˈnu]. And here is an example of (true) triphthong: νεοελληνικός [ˌnɛσɛliniˈkσs] or [nɛσɛˌliniˈkσs].

6.3. True diphthongs can only have these patterns. In fact, 'rising diphthongs' do not exist, in spite of most 'scientific' production on the subject. Such a glaring error is caused by the fact of thinking about an exclusively phonic matter, always simply considering the same obtrusive spelling (which is not the real language, but only a poor way of fixing it). So, patterns like /VˈV/ [VˈV, VˌV] are simply hiatuses.

Examples: Κοραής [ˌkσraˈis], Ιούλης [ˈjuˑlis], ναός [naˈσs], γριές [ɣriˈɛs], θεοί

[θɛˈi], φαΐ [faˈi], καΐκι [kaˈïci], πρωί [prɔˈi], ναού [naˈu].

Let us also notice: ιοντισμός [ˌjɔndizˈmɔs, iˈɔn-], ιώδιο [ˈjɔˑðjɔ, iˈɔˑðiɔ] (but [-diɔ] is a diphthong), ιουνιανά [ˌjunjaˈna] (or [iˌuniaˈna], already seen). In addition, let us carefully consider words as the following ones, especially colloquially or mediatically, although, generally, in great oscillation between the two types: ουίσκι [ˈwisci, uˈis-], ουαί! [ˈwɛ, uˈɛ], ουά! [ˈwa, uˈa].

Patterns like /ˈjV, jV/ [ˈjV, ˌjV, ˌjV] (in other languages and loanwords, certainly also /ˈwV, wV/ and in case /ˈɥV, ɥV/, for instance) are simply /CV/ sequences, *ie* a consonant followed by a vowel in the same syllable: thus, not 'diphthongs' at all.

*fig* 6.1.2. International Greek vowel orograms.
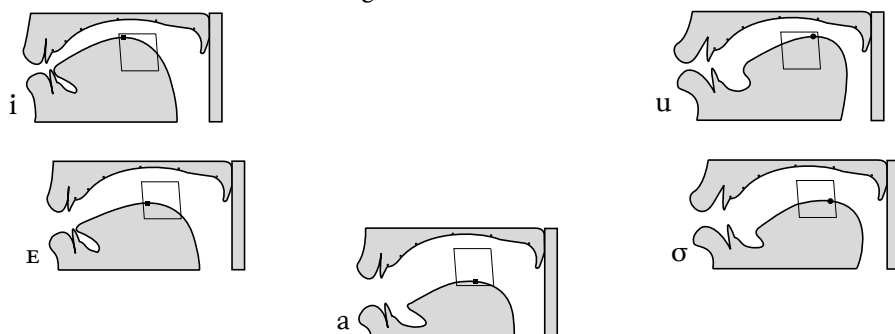


*fig* 6.1.3. International Greek vowel labiograms.
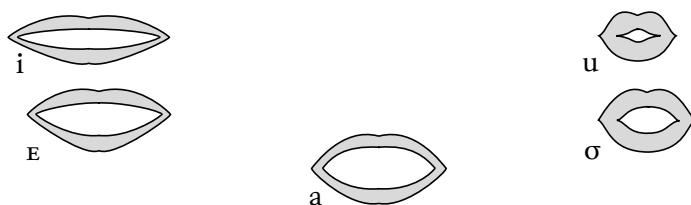


*fig* 6.1.4. International Greek vowel palatograms.
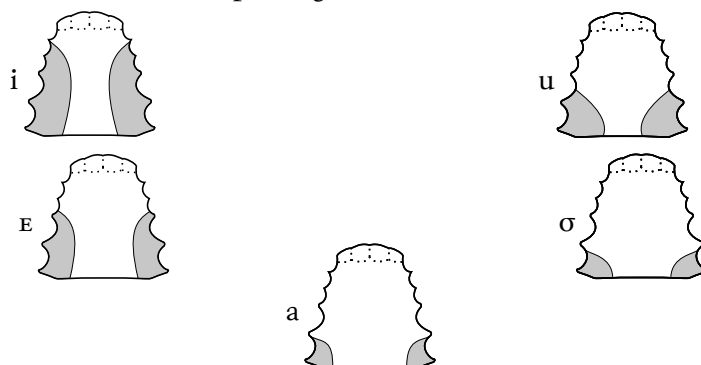


## The vowels of *traditional* (or katharevousa) Greek

6.4. Comparing *fig* 6.1.1 and *fig* 6.2, we clearly see that this inventory is a little less simple than the international one. In fact, we can see that unstressed /ɛ, a, ɔ/, in addition to keeping their basic timbres, can also have closer realizations.

However, such timbres oscillate much, both between speakers and words, as well. Besides, and not at all rarely, such oscillations may include using the timbres of neutral Greek, shown in *fig* 6.3.

The diphthongs, triphthongs and hiatuses are combinations of the vocoids shown. There is no need to present further vocograms, since those of *fig* 6.1.1 are a sufficient indication of their structures.

*fig* 6.2. Traditional Greek vowel vocogram.
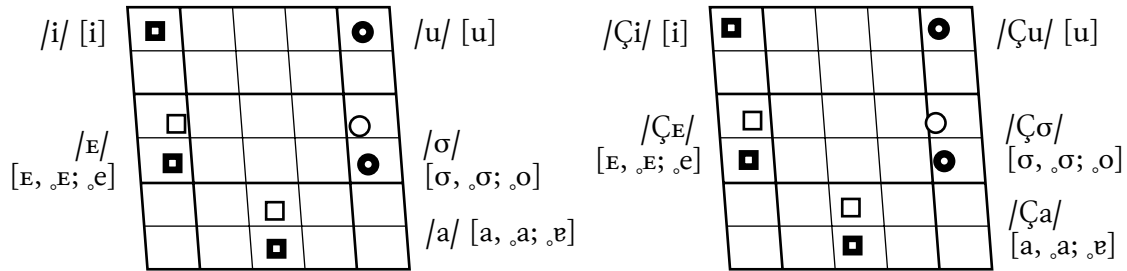


### The vowels of *neutral* (or modern demotic) Greek

6.5. As *fig* 6.3 shows, the main difference of this accent, in comparison with the other three (including the mediatic one, *cf* § 6.6), consists in the opener timbres of stressed /ɛ, ɔ/ [ɛ, ɔ]. Accordingly, when they are unstressed, their timbres are [ɛ, ɔ], with the possibility of being closer, *ie* [e, o], especially in syllables occurring after the stressed ones. However, oscillations of both [ˌɛ, ˌe; ˌɔ, ˌo] and [ˈɛ, ˈɛ; ˈɔ, ˈɔ] are not at all rare. Even unstressed /a/ can oscillate between [a] and [ɐ].

In spite of all these possible oscillations, their best occurrences (which we will show in the transcriptions of Ch 11) are: [i], [ɛ, ˌɛ], [a, ˌɐ], [ɔ, ˌɔ], [u]. However, the second vocogram in *fig* 6.3 shows frequent possible neutral variants, which can certainly be heard even from good speakers: [ɛ, ˌe], [ɔ, ˌo], including [ˌɪ], [ˌʊ]. That vocogram also shows /ɛi/ [ei], which is more frequent and systematic than an expected [ɛi].

The other diphthongs, triphthongs and hiatuses are combinations of the vocoids shown, so there is no need to present further vocograms, since those of *fig* 6.1.1 are a sufficient indication of their actual structures.

Let us, now, have a good look at the last two vocograms, in *fig* 6.3, *ie* third and fourth. They show the frequent taxophones occurring in unstressed syllables, in *colloquial* neutral pronunciation. The third gives the taxophones mainly occurring in *pre*-stressed syllables (not necessarily immediately before the stressed one): [ɪ, ᴈ, ɐ, ʊ, ʉ].

The fourth vocogram gives the taxophones mainly occurring in *post*-stressed syllables (again, not necessarily immediately after the stressed one): [ɪ, ᴈ, ɜ, o, ʊ]. Of course, all these may inevitably oscillate between them, including those shown in *fig* 6.1.1. There is no risk of misunderstanding, although the more 'attenuated' taxophones are more typical of *colloquial* (neutral) Greek.

*fig* 6.3. Neutral Greek vowel vocograms.

/i/ [i]          /u/ [u]          /Çi/          /Çu/
                                  [i]            [u]

/ɛ/              /ɔ/              /Çɛ/          /Çɔ/
[ɛ, ₒɛ; ˈ...e]   [ɔ, ₒɔ; ˈ...o]   [ɛ, ₒɛ; ˈ...e]  [ɔ, ₒɔ; ˈ...o]

                 /a/ [a, ₒa, ₒɐ]                /Ça/
                                                [a, ₒa, ₒɐ]

Further frequent possible neutral variants

/i/ [ₒɪ]                    /u/ [ₒʊ]

/ɛi/ [ei]
/e/ [ɛ, ₒɛ; ₒe]            /o/ [ɔ, ₒɔ; ₒo]
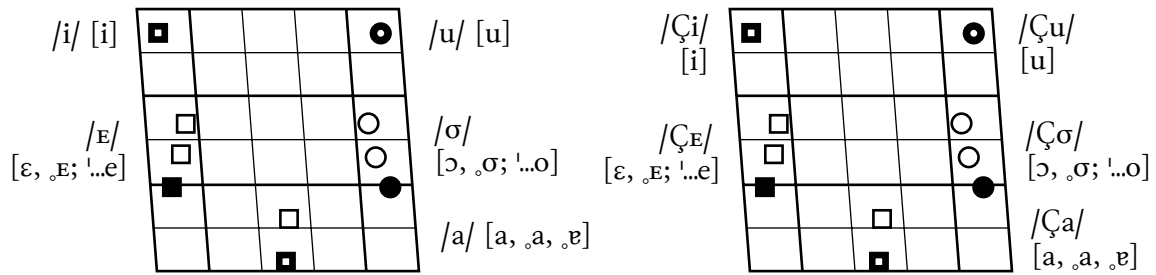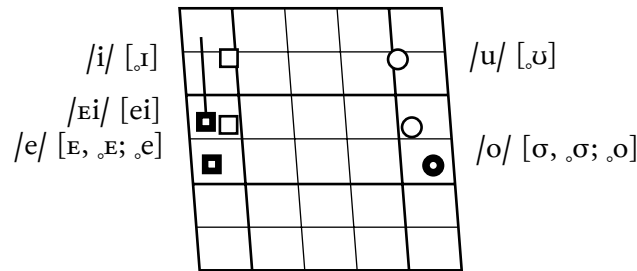
Possible variants in *pre*stressed syllables, in fast speech

/i/ [ɪ...ˈ]                 /u/ [ɰ...ˈ]

/ɛ/ [ɜ...ˈ]                 /ɔ/ [ɵ...ˈ]

                           /a/ [ɐ...ˈ]
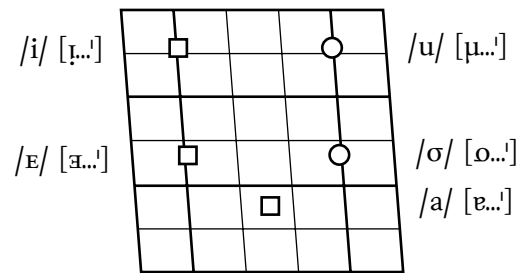
Possible variants in *post*stressed syllables, in fast speech

/i/ [ˈ...ɪ]                 /u/ [ˈ...ʊ]

/ɛ/ [ˈ...ə]                 /ɔ/ [ˈ...o]

                           /a/ [ˈ...ɜ]
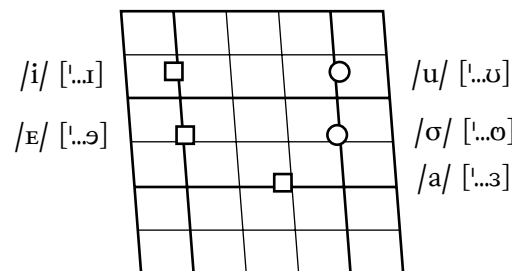

## The vowels of *mediatic* Greek

6.6. *fig* 6.4 shows the realizations of the Greek vowels in the *mediatic* accent.
Let us notice their main peculiarities: /ɛ, ɔ/ are generally realized at somewhat
different heights, as can be seen. As the second vocogram shows, they can also have
possible unstressed variants similarly realized: [ə, ʊ]. In addition, /a/ [a, ₒɐ] can fre-
quently become [ʌ], or else [ʌ, ₒɑ], when preceded by /j/ (as shown), or by /c, ɟ; ç,
ʝ; ɲ; ʎ/ (including [ₒjɑ], when it is also followed by one of the same consonants).
We can safely indicate palatal consonants generally as /Ç/.

*fig* 6.4. Mediatic Greek vowel vocograms.

/i/ [i]   /u/ [u]   /Çi/ [i]   /Çu/ [u]

/ɛ/ [ɛ]   /o/ [o]   /Çɛ/ [ɛ]   /Ço/ [o]

/a/ [a]   /Ça/ [a]

Further frequent possible neutral variants

/i/ [ɪ, ɪ]   /u/ [ʊ, ɵ]   /ɛi/ [ei]   /o/ [ɔ, o,
                          /ɛ/ [ɛ, e,      ₒʊ, ₒo]
/a/ [ʌ, ₒɐ,              ₒɐ, ₒə]
jʌ, ₒjɑ, ↓ÇaÇ]
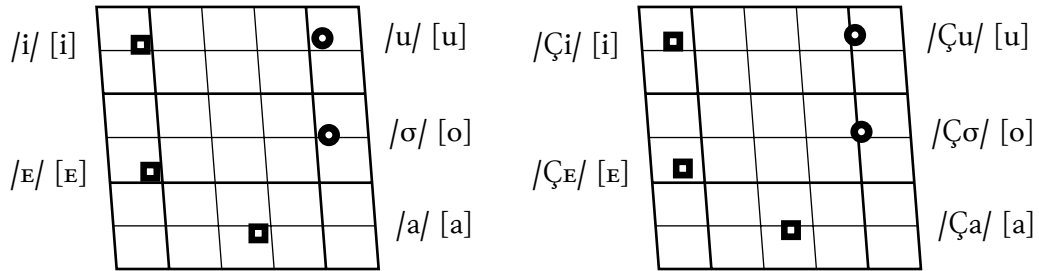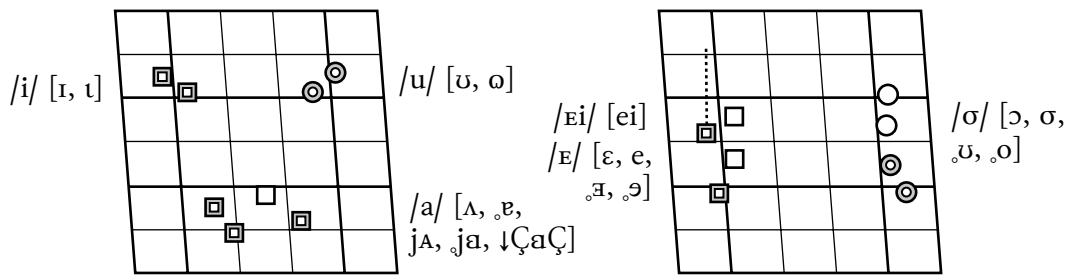
Typical frequent variants in *pre*stressed syllables, including [ⱽ, ᵥ̊, ᵧ̊, ᵧ̆, ᵧ̆, ∅, Ç, Ɥ]

/i..'/ [ɪ]   /u..'/ [ʊ]

/ɛ..'/ [ɐ, ↓ɜ]   /o..'/ [ɵ]

/a..'/ [ɐ, ↓ɜ]

Typical frequent variants in *post*stressed syllables, including [ⱽ, ᵥ̊, ᵧ̊, ᵧ̆, ᵧ̆, ∅, Ç, Ɥ]

/'..i/ [ɪ]   /'..u/ [ɵ]   /'..i/ [∅]   /'..u/ [∅]

/'..ɛ/ [ə, ↓ɪ]   /'..o/ [ʊ, ↓ɵ]   /'..ɛ/ [ɐ]   /'..o/ [ɤ, ɤ,
                                                    ɜ, ↓ɐ]
/'..a/ [ɜ]   /'..a/ [ə, ɐ,
                      ɤ, ↓ɨ]
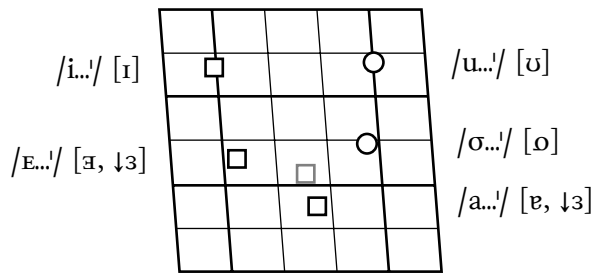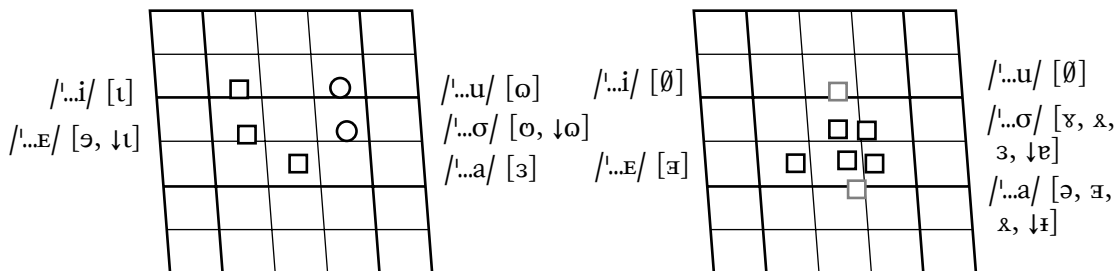
Occasionally, we can also find stressed /i/ [ɪ, ɪ], /u/ [ʊ, ɵ], /ɛ/ [ɛ] and /o/ [ɔ]. In addition, /VÇ/ sequences can even appear as [Vi, Vɪ, Vⁱ] followed either by true [Ç] consonants, or by prevelar [k̟, g̟; x̟, ɣ̟] (including [ɲ; ʎ] 'pro-palatal', or retracted prepalatal).

Often, we even find [Cj] (as many foreigners can do, too). Of course, also in this accent (and even more so, given its nature), oscillations between neutral and traditional realizations are quite common.

The same is true of the diphthongs, triphthongs and hiatuses, which are combinations of the vocoids shown mostly in the first vocogram of *fig* 6.4. Thus, there is no need to present further vocograms, since those of *fig* 6.1.1 are a sufficient indication

of their actual structures. Possible different combinations will be duly shown.

The last three vocograms in *fig* 6.4 show the typical frequent variants in *un*stressed syllables: *pre*stressed, [ɪ; ɨ; ɐ; ɜ; ɔ; ʊ], and *post*stressed, /i/ [ɪ; Ø] (notice that [Ø] means a 'zero' phone), /ɛ/ [ə; ɪ; ɨ], /a/ [ɐ; ɜ; ə] (including [ɜ; ʁ; ɨ]), /o/ [ʊ, ɵ] (including [ʁ; ʁ; ɜ; ɐ]), /u/ [ɵ; Ø]). They behave in a similar way as in the neutral accent, although

*fig* 6.5.1.1. Orograms of the unrounded vocoids of the three additional accents: traditional, neutral, and mediatic.
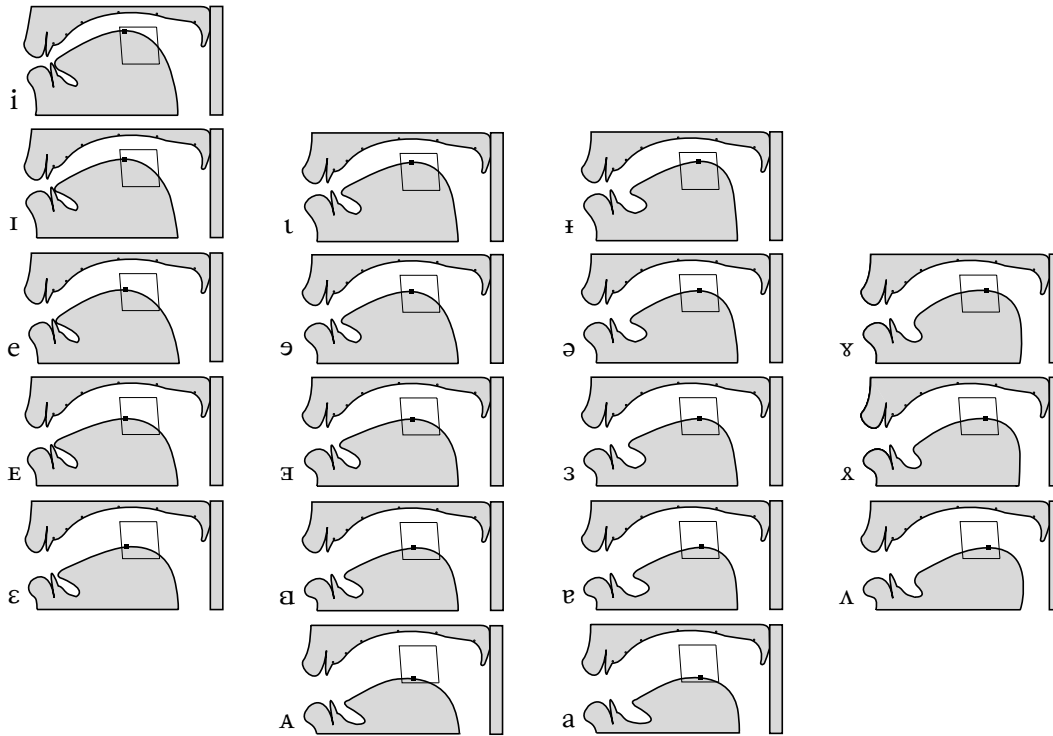


*fig* 6.5.1.2. Orograms of the rounded vocoids of the three additional accents: traditional, neutral, and mediatic (including those of the possible French xenophonemes: /y, ɵ/ [y, ø, ɵ]).
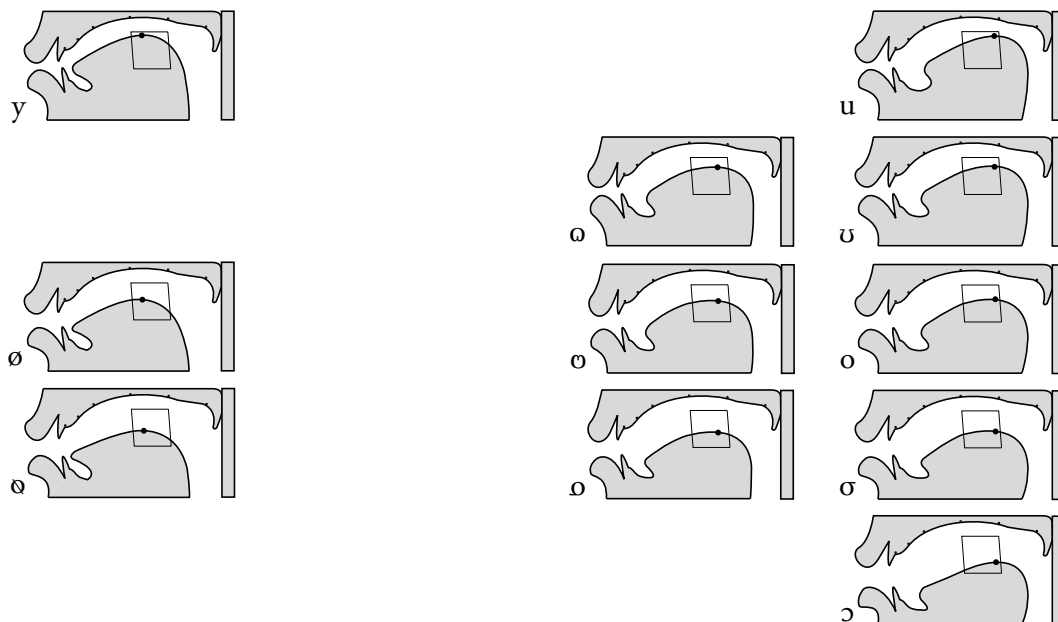
in a rather stronger way, and decidedly more frequently.

Let us notice, however, that [ɪ; ɜ; ɤ; ɵ] represent possible phonemic *overlappings*, in addition to possible *droppings* of [ɪ; ɵ], becoming [Ø], 'zero', also with intermediate stages, as *shortening*, and *devoicing* (generically indicated by '&c', in the second vocogram). More will be said and shown in Ҁ 9.

In addition, *fig* 6.5.1.1-2 & *fig* 6.5.2-3 show the orograms of all vocoids used in the three accents described besides the international one.

*fig* 6.5.2. Labiograms of the vocoids of the three additional accents.
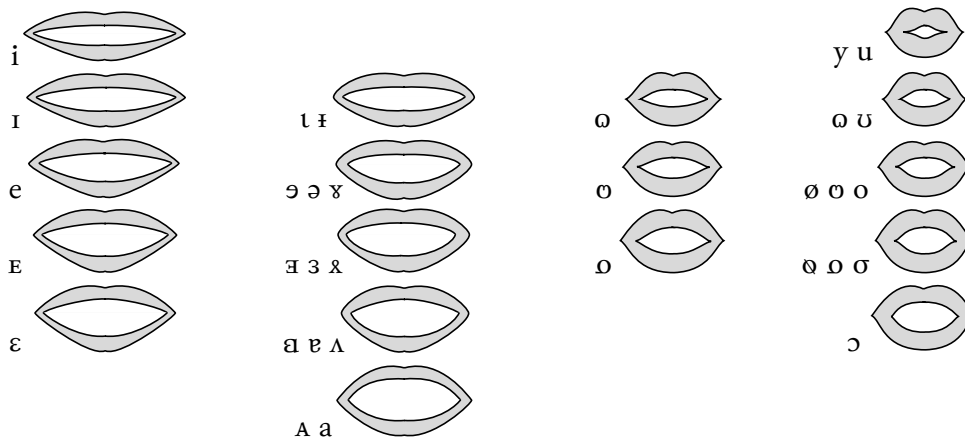


*fig* 6.5.3. Labiograms of the vocoids of the three additional accents.
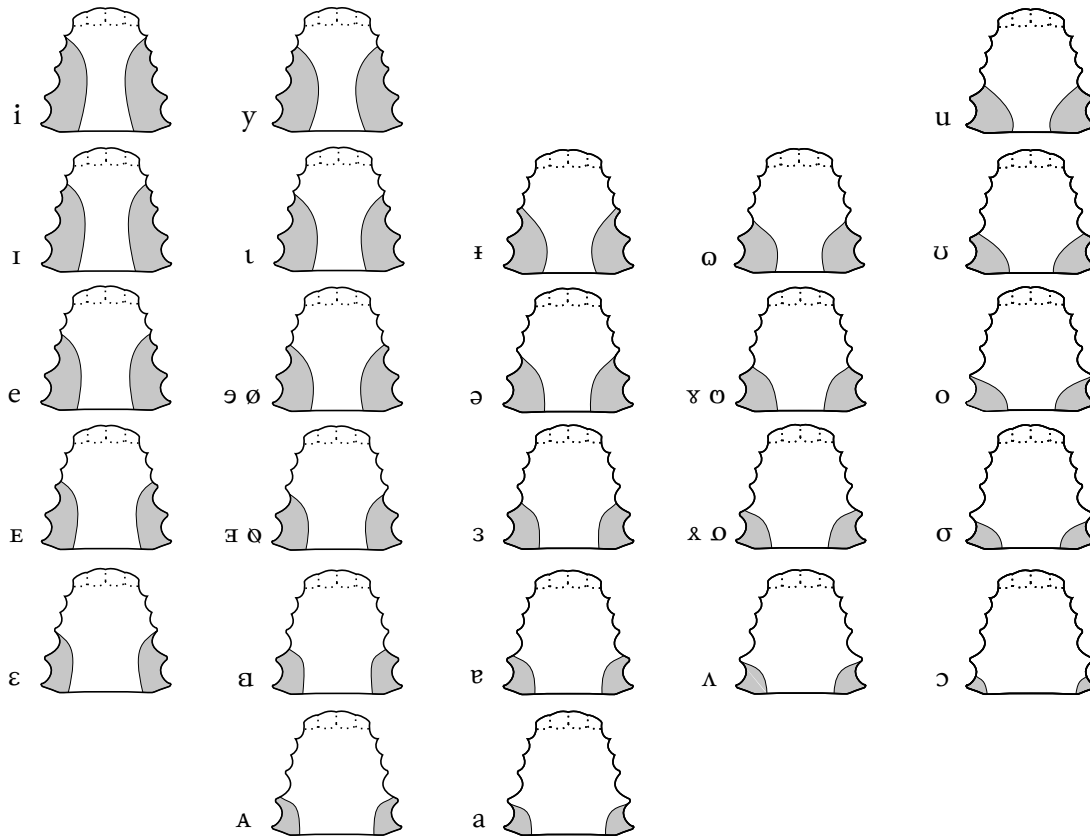
### Synoptic presentation of the vowel elements for the four Greek accents

6.7. Only main phones are provided here (others, less important or less systematic ones, can be seen in the corresponding vocograms), as, for instance: ποιητής [pi-i'tis], ζώο ['zɔɔ]. Of course, the vocograms can also reveal smaller differences for each accent, as can be easily seen.

We also include possible occasional monotimbric diphthongal /VV/ sequences: /ii, ee, aa, oo, uu/, and variants shown especially in *fig* 6.3$^n$ & *fig* 6.4$^m$, for stressed and unstressed syllables.

Besides, *cf* § 8.10 for some useful examples. In addition, *fig* 6.7 shows the possible French xenophonemes.

/i/ $^{i/t}$[i], $^n$[i] [ɪ] ([ɪ...'] ['...ɪ]), $^m$[i] [ɪ, ɩ] ([ɪ...'] ['...ɩ, '...∅] &c),

/ɛ/ $^i$[ɛ], $^t$[ɛ, ˳ɛ; ˳e], $^n$[ɛ, ˳ɛ, '...e] [ɛ, ˳e, '...ɛ] ([ɑ...'] ['...ɘ]), $^m$[ɛ] [e, 'ɛ, ˳ɘ, ˳ɑ] ([ɑ...', ↓ɜ...'] ['...ɘ, '...ɩ, '...ɑ]),

/a/ $^i$[a], $^t$[a, ˳a] [˳ɐ], $^n$[a, ˳a, ˳ɐ] ([ɐ...'] ['...ɜ]), $^m$[a] [ʌ, ˳ɐ; jʌ, jɑ, ↓ɑ] ([ɐ...', ↓ɜ...'] ['...ɐ, '...ɜ, '...ɑ, '...ɹ, ↓'...ɪ]),

/ɔ/ $^i$[ɔ], $^t$[ɔ, ˳ɔ; ˳o], $^n$[ɔ, ˳ɔ, '...o] [ɔ, ˳o, '...ɔ] ([ɒ...'] ['...o]), $^m$[o] [ɔ, 'ɔ, ˳ʊ] ([ɒ...'] ['...o, '...ɷ, '...ɤ, '...ɑ, '...ɜ, ↓'...ɐ]),

/u/ $^{i/t}$[u], $^n$[u] [ʊ] ([µ...'] ['...ʊ]), $^m$[u] [ʊ, ɵ] ([ʊ...'] ['...ɷ, '...∅] &c);

/iɛ/ $^i$[iɛ], $^{t/n}$[$^{(i)}$iɛ; ˳ie], $^m$[$^{(i)}$iɛ, $^{(i)}$ie, $^{(i)}$ɪɛ, $^{(i)}$ɪe, $^{(i)}$ɪɛ, $^{(i)}$ɩe, ˳ɪɘ, ˳ɪɑ],

/ia/ $^i$[ia], $^t$[$^{(i)}$ia; ˳iɐ], $^n$[$^{(i)}$ia, ˳iɐ], $^m$[$^{(i)}$ia, $^{(i)}$ɪa, $^{(i)}$ɩa, $^{(i)}$iʌ, $^{(i)}$ɪɐ, $^{(i)}$ɩɐ],

/iɔ/ $^i$[iɔ], $^{t/n}$[$^{(i)}$iɔ; ˳io], $^m$[$^{(i)}$io, $^{(i)}$iɔ, $^{(i)}$ɪo, $^{(i)}$ɩo, ˳ɪʊ, ˳ɩɷ],

/iu/ $^{i/t}$[iu], $^n$[$^{(i)}$iu, $^{(i)}$iʊ, ˳ɪu, ˳ɩʊ], $^m$[$^{(i)}$iu, $^{(i)}$iʊ, $^{(i)}$iɵ, $^{(i)}$ɪu, $^{(i)}$ɩu, ˳ɪʊ, ˳ɩʊ, ˳ɩɷ];

/ɛi/ $^i$[ɛi], $^t$[$^{(i)}$ɛi; ˳ei], $^n$[$^{(i)}$ei, $^{(i)}$ɛi, ˳ɛɪ, ˳ɛɪ], $^m$['ɛi, $^{(i)}$ɛi, $^{(i)}$ei, ˳ɛɪ, ˳ɛɩ, ˳eɪ],

/ɛa/ $^i$[ɛa], $^t$[$^{(i)}$ɛa; ˳ɛɐ; ˳eɐ], $^n$['ɛa, $^{(i)}$ɛa, $^{(i)}$ɛɐ; ˳eɐ], $^m$['ɛa, 'ɛɐ, $^{(i)}$ɛa, $^{(i)}$ɛɐ, $^{(i)}$ea, $^{(i)}$eɐ],

/ɛɔ/ $^i$[ɛɔ], $^t$[$^{(i)}$ɛɔ; ˳ɛo; ˳eo], $^n$['ɛɔ, $^{(i)}$ɛɔ; ˳ɛo; ˳eo], $^m$['ɛo, 'ɛɔ, $^{(i)}$ɛo, $^{(i)}$ɛɔ, $^{(i)}$eo, $^{(i)}$eɔ],

/ɛu/ $^i$[ɛu], $^t$[$^{(i)}$ɛu; ˳eu], $^n$['ɛu, $^{(i)}$ɛu, ˳ɛʊ; ˳eʊ], $^m$['ɛu, $^{(i)}$ɛu, $^{(i)}$eu, ˳ɛʊ, ˳eʊ, ˳ɛɵ, ˳eɵ];

/ai/ $^i$[ai], $^t$[$^{(i)}$ai; ˳ɐi], $^n$[$^{(i)}$ai, ˳ɐi, ˳ɐɪ], $^m$[$^{(i)}$ai, $^{(i)}$ʌi, ˳ɐi, ˳ɐɪ, ˳ɐɩ],

/aɛ/ $^i$[aɛ], $^t$[$^{(i)}$aɛ; ˳ae; ˳ɐe], $^n$[$^{(i)}$aɛ, ˳ɐɛ; ˳ɐe], $^m$[$^{(i)}$aɛ, $^{(i)}$ʌɛ, ˳ɐɛ, ˳ɐe, ˳ɐɑ, ˳ɐɘ],

/aɔ/ $^i$[aɔ], $^t$[$^{(i)}$aɔ; ˳ao; ˳ɐo], $^n$[$^{(i)}$aɔ, ˳ɐɔ; ˳ɐo], $^m$[$^{(i)}$ao, $^{(i)}$aɔ, $^{(i)}$ʌo, $^{(i)}$ʌɔ, ˳ɐo, ˳ɐɵ, ˳ɐʊ],

/au/ $^i$[au], $^t$[$^{(i)}$au; ˳ɐu], $^n$[$^{(i)}$au, ˳ɐu, ˳ɐʊ], $^m$[$^{(i)}$au, $^{(i)}$ʌu, ˳ɐu, ˳ɐʊ, ˳ɐɵ];

/ɔi/ $^i$[ɔi], $^t$[$^{(i)}$ɔi; ˳oi], $^n$['ɔi, $^{(i)}$ɔi, ˳ɔɪ; ˳oɪ], $^m$['ɔi, $^{(i)}$ɔi, $^{(i)}$oi, ˳ɔɪ, ˳ɔɩ],

/ɔɛ/ $^i$[ɔɛ], $^t$[$^{(i)}$ɔɛ; ˳ɔe; ˳oe], $^n$['ɔɛ, $^{(i)}$ɔɛ; ˳ɔe; ˳oe], $^m$['ɔɛ, $^{(i)}$ɔɛ, $^{(i)}$ɔe, ˳ɔe, ˳oe],

/ɔa/ $^i$[ɔa], $^t$[$^{(i)}$ɔa; ˳ɔɐ; ˳oɐ], $^n$['ɔa, $^{(i)}$ɔa, ˳ɔɐ; ˳oɐ], $^m$['ɔa, 'ɔɐ, $^{(i)}$ɔa, $^{(i)}$ɔɐ, $^{(i)}$oa, $^{(i)}$oɐ],

/ɔu/ $^i$[ɔu], $^t$[$^{(i)}$ɔu; ˳ou], $^n$['ɔu, $^{(i)}$ɔu, ˳ɔʊ; ˳oʊ], $^m$['ɔu, $^{(i)}$ɔu, $^{(i)}$ou, ˳ɔʊ, ˳oɵ];

/ui/ $^{i/t}$[ui], $^n$[$^{(i)}$ui, ˳uɪ, ˳ʊi, ˳ʊɪ], $^m$[$^{(i)}$ui, ˳uɪ, ˳uɩ, ˳ʊɪ, ˳ʊɩ, ˳ɵɪ, ˳ɵɩ],

/uɛ/ $^i$[uɛ], $^t$[$^{(i)}$uɛ; ˳ue], $^n$[$^{(i)}$uɛ, ˳ʊɛ; ˳ʊe], $^m$[$^{(i)}$uɛ, $^{(i)}$ʊɛ, $^{(i)}$ɵɛ, ˳ʊe, ˳ɵe],

/ua/ $^i$[ua], $^t$[$^{(i)}$ua; ˳uɐ], $^n$[$^{(i)}$ua, ˳uɐ, ˳ʊɐ], $^m$[$^{(i)}$ua, $^{(i)}$ʊɐ, $^{(i)}$ɵɐ, ˳ʊɐ, ˳ɵɐ],

/uɔ/ $^i$[uɔ], $^t$[$^{(i)}$uɔ; ˳uo], $^n$[$^{(i)}$uɔ, ˳ʊɔ; ˳ʊo], $^m$[$^{(i)}$uɔ, $^{(i)}$uo, $^{(i)}$ʊo, ˳ɵo].

## Possible differences between traditional Greek and the other accents

6.8. Mostly in traditional (or 'katharevousa') Greek, words of learned origin (as shown in § 8.9), instead of /jV/ are more often pronounced with /iV/: σκιάζω 'I shade' [ski'aˑzɔ], Μήδεια ['miˑðia], in comparison with σκιάζω 'I scare' [sˈkjaˑzɔ] and μύδια ['miˑðja].

Actually, things are rather unstable and fluctuating. In fact, traditional speakers may also produce the other variants, while other speakers may behave the other way up, producing what would seem to be more refined than expected.

This is what a good Greek pronouncing dictionary should show clearly, with all the necessary variants. In Ꮯ 9, we will deal with some of these phenomena, with changes and reductions of phonemic elements.

## Vocalic sequences and their possible typical reduction

6.9. Let us examine well *fig* 6.6, which shows some frequent reductions concerning vowel sequences, when there is no complete dropping. For instance, in είναι από ύφασμα, in addition to [ˌinɛaˌpɔˈiˑfazma], we may certainly have [ˌinjaˈpɯˑfazma], in addition to more colloquial [ˌinaˈpiˑfazma] (sometimes even considered broad).

*fig* 6.6. Possible vowel sequences reductions (from diphthongs, [VV], to [CV] sequences).
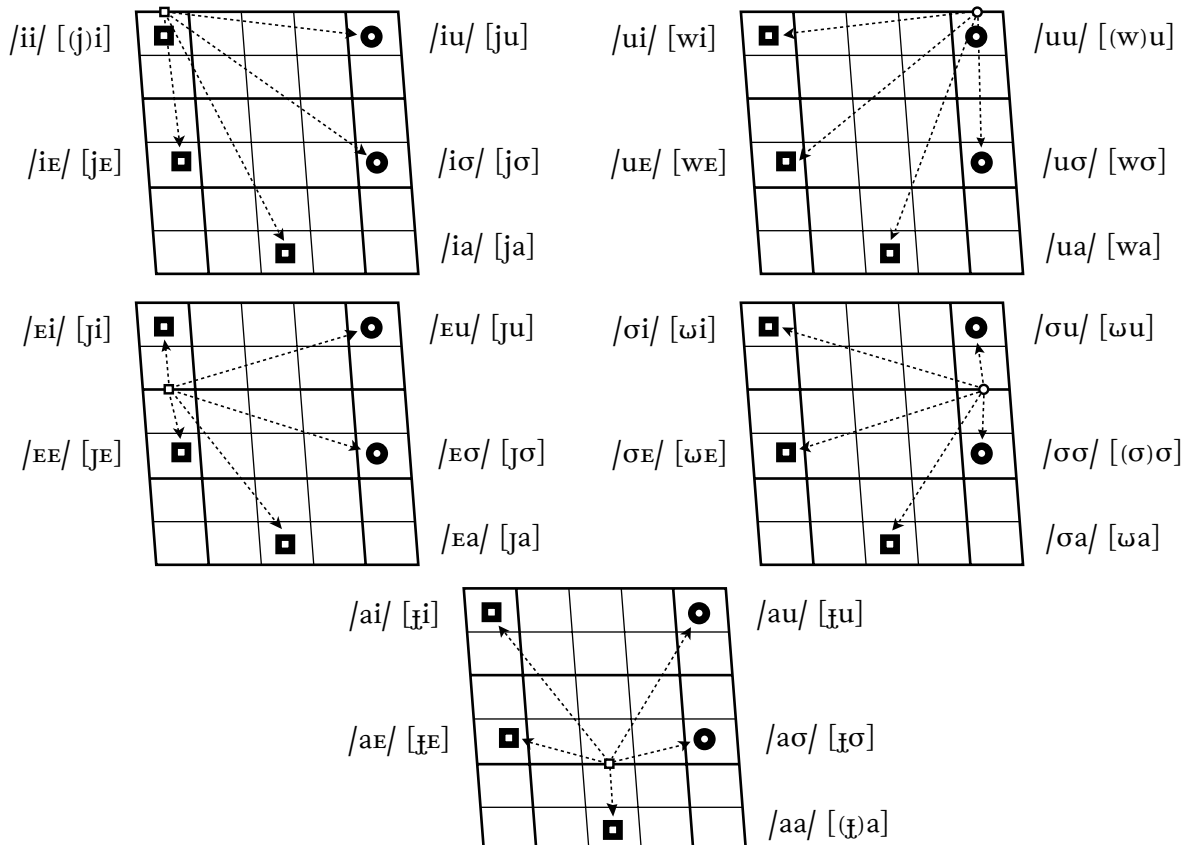
## Main vowel xenophonemes

6.10. Sometimes, but not necessarily (since they are generally felt to be rather far-
-fetched), French loanwords may present the *xenophonemes* '/y, ɵ/' [y, ɵ], as in: φλυτ
['ˈflit, 'ˈflut, ↕'ˈflyt] (*flûte* ['ˈflyt]), μπλε ['ˈblɛ, ↕'ˈblɵ] (*bleu* ['ˈblø]), αντρετιέν [ˌɑndrɛˈtjɛn,
↑ˌɑntr-] ↑↑[ɑ̃n-, -ˈtjɛ̃n] (*entretien* [ˌɵ̃tʀɵˈtjɑ̃]), ζαμπόν [zamˈbɔn, ↓-aˈb-] ↑↑[ʒɑ̃mˈbɔ̃n, ʒ-]
(*jambon* [ʒɵ̃ˈbɔ̃]), cf fig 6.7.

fig 6.7. Possible vowel xenophonemes for French loans (including the nasalized vowels).



International Greek

/y/ [i, u, ↑y]

/ɵ/ [ɛ, ↑ɵ]
/ɛ̃, ɵ̃/ [ɛn, ↑ɛ̃n]          /ɔ̃/ [ɔn, ↑ɔ̃n]

/ɑ̃/ [an, ↑ɑ̃n]

Traditional Greek

/y/ [i, u, ↑y]

/ɵ/ [ɛ, ˌɛ, ˌe] ↑[ɵ, ˌɵ, ˌø]
/ɛ̃, ɵ̃/ [ɛn, ˌɛn, ˌen] ↑[ɵ̃n, ˌɵ̃n, ˌẽn]          /ɔ̃/ [ɔn, ˌɔn, ˌon] ↑[ɔ̃n, ˌɔ̃n, ˌõn]

/ɑ̃/ [an, ˌan, ˌɐn] ↑[ɑ̃n, ˌɑ̃n, ˌɐ̃n]

Neutral Greek

/y/ [i, u, ↑y]

/ɵ/ [ɛ, ˌɛ] ↑[œ, ˌɵ]
/ɛ̃, ɵ̃/ [ɛn, ˌɛn] ↑[ɛ̃n, ˌɵ̃n]          /ɔ̃/ [ɔn, ˌɔn] ↑[ɔ̃n, ˌɔ̃n]

/ɑ̃/ [an, ↑ɑ̃n]

Mediatic Greek

/y/ [i, u, ↑y]

                                              /ɔ̃/ [on, ↑ɔ̃n]
/ɵ/ [ɛ, ↑ɵ]
/ɛ̃, ɵ̃/ [ɛn, ↑ɛ̃n]

                                              /ɑ̃/ [ʌn, ↑ʌ̃n]
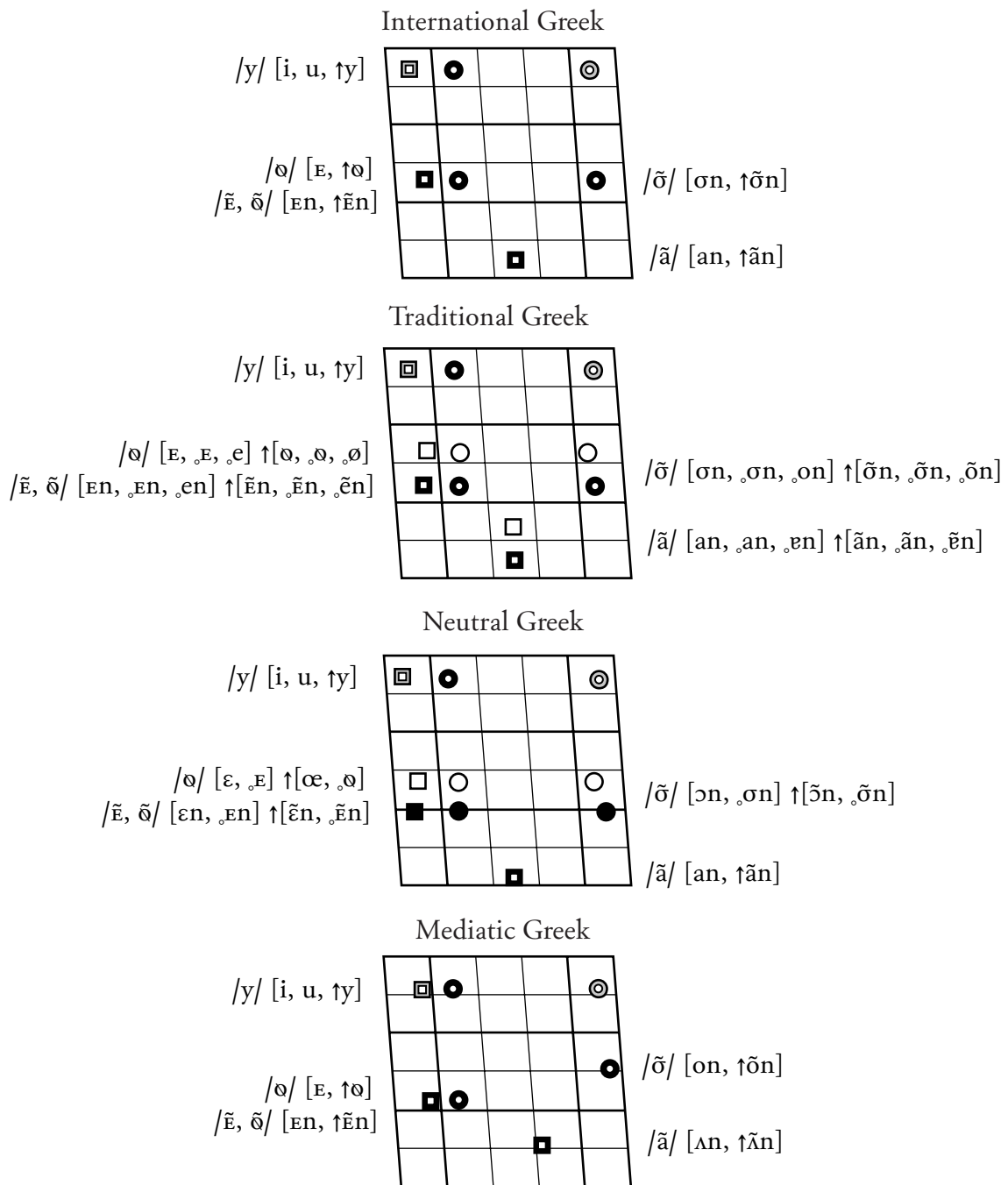
# 8.
# Greek consonants

**The consonants of *international* Greek**

8.1. Let us start from the 'international' Greek accent, which is clearly a simplified version, in comparison with what we will see soon. However, even this version is more realistic and 'natural' than many previous 'descriptions', which showed more theoretical and abstract phoneme inventories, with unnecessary complications caused by real phonemes to be derived by more general consonant sequences. Let us notice that our international Greek consonant inventory, apart from a few taxophones for /n, l/, coincides with a practical *phonemic* 'natural' inventory.

We are particularly talking about the 'palatalized' realizations [ɲ; c, ɟ; ç, ʝ; ʎ], too often treated as if they actually were something like /nj; kj, gj; xj, ɣj; lj/ (either with /j/ or, more presumably, /ʝ/, also avoiding having /j/ as a true phoneme). Of course, we also posit /ts, ʣ/, instead of sequences, /ts, dz/. It is certainly better to have some phonemes more, even if with more limited distributions, than using more abstract and less obvious sequences.

In fact, there is no real advantage at all in having –nowadays– a sort of poor imitation of the objectively absurd official spelling with regard to actual Greek phonemics, although nobody could certainly deny that it is imporant etymologically, for the true meaning of so many words.

Thus, the more convenient consonant system is the one shown in *fig* 8.1.1-2, mainly with true constrictive consonants (rather than semiconstrictive). Although, generally, its exact phones are somewhat more *ᵒᶠᶠIPA* than true Greek, they will inevitably be more convincing than so many other (foreign) renderings. Let us simply compare them with the neutral ones given in *fig* 8.3.1-2.

There are three *nasal* phonemes, /m, n, ɲ/. Let us notice that /n/ has three homorganic taxophones, occurring before consonants produced on different articula-

*fig* 8.1.1. International Greek consonants.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| m | [ɱ] | [ɱ] | [ɱ] | n | [ɳ] | | ɲ | [ŋ] | [ŋ] |
| p b | | | t d | | | | c ɟ | [k g] | k g |
| | | | ts ʣ | | (tʃ ʤ) | | | | |
| | f v | θ ð | s z | | (ʃ ʒ) | ç | [ʝ] | [x ɣ] | x ɣ |
| | | | | | | | j | | (w) |
| | | [l] | [l] | ɾ-l | [ḷ] | | ʎ | | |

tion places. Examples: μάτι ['maˑti], άμμος ['aˑmɔs], την μέννα [tim'bɛˑna], αμφί-βιος [amɲ'fiˑviɔs], τον βίο [tɔɱ'viɔ], πέντε ['pɛndɛ], νάνος ['naˑnɔs], νιάτα ['ɲaˑta], τον κήπο [tɔɲ'ɟiˑpɔ], συγχέω [siɲ'çeɔ], την κάπα [tiŋ'kaˑpa], τον ξέρω [tɔŋ'gzeˑrɔ], καγχασμός [ˌkaŋxaz'mɔs].

*fig* 8.1.2. International Greek consonants: orograms.
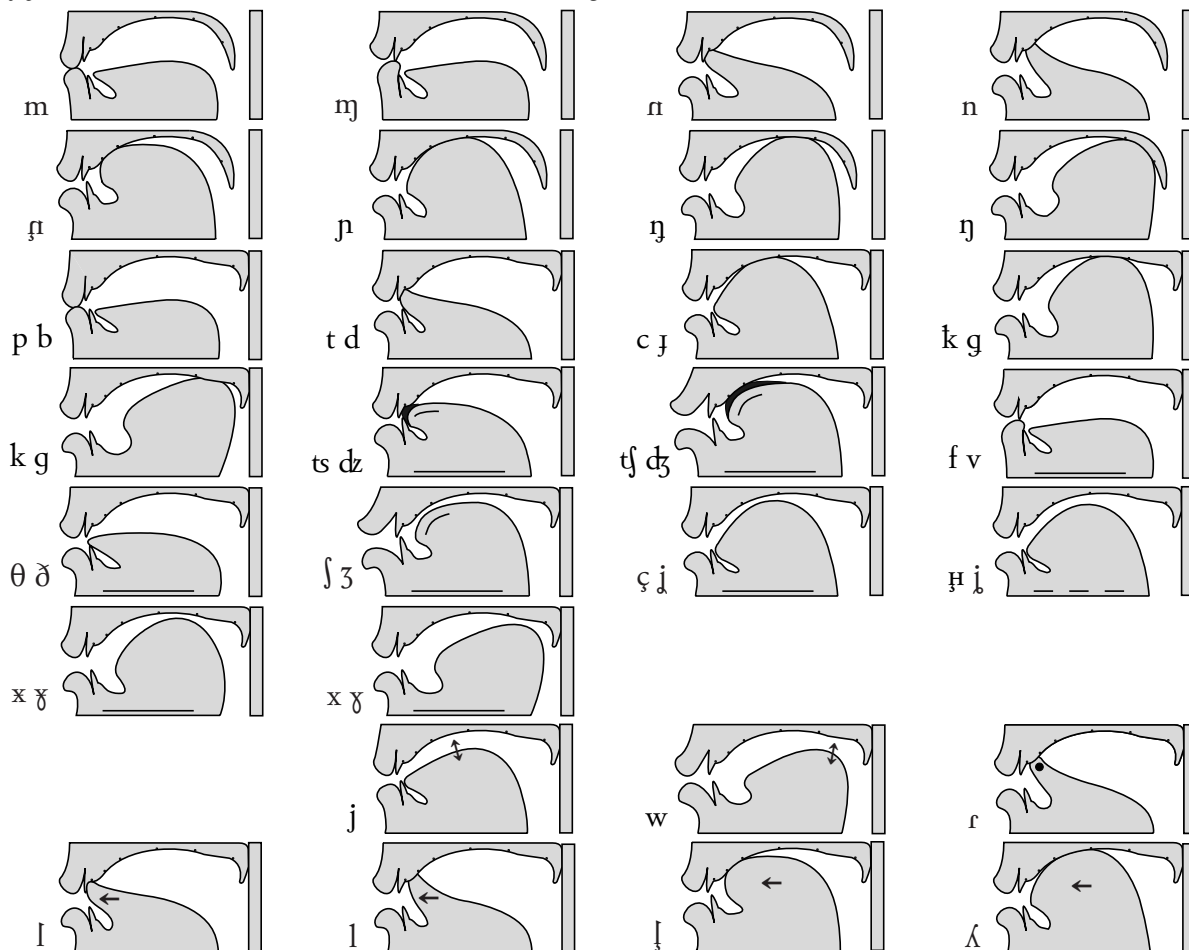


8.2. In addition, there are four (diphonic) *stop* pairs, /p, b; t, d; c, ɟ; k, g/: πίνω ['piˑnɔ], στουππί [stu'pi], μπαίνω ['bɛˑnɔ], κουμπάρος [ku'baˑrɔs, kum'baˑ-], τότε ['tɔtɛ], κόττα ['kɔˑta], ντύνω ['diˑnɔ], αντίο [a'diɔ], έντεκα ['ɛndɛka], κέφι ['cɛˑfi], εκείνος [ɛ'ciˑnɔs], και [cɛ, 'cɛ], κιάλι ['caˑli], κακός [ka'kɔs], γκέμι ['ɟɛˑmi], έγκυος ['ɛɲɟiɔs], έγκώμιο [ɛ'gɔˑmiɔ, ɛŋ'gɔˑmiɔ], εγγονός [ˌɛgɔ'nɔs, ˌɛŋgɔ-], κύριος ['kiˑrjɔs], γκάζι ['gaˑzi], άγχος ['aŋxɔs].

There is also a pair of (diphonic) dental *stopstrictives*: τσέπη ['tsɛˑpi], τσάι ['tsai] (tea), τζάμι (window-glass) ['dzaˑmi], τζαμί [dza'mi], τζίτζικας ['dziˑdzikas]. Sometimes, but not necessarily (since they are often felt to be rather far-fetched), loanwords may present the *xenophonemes* '/tʃ, dʒ/' [tʃ, dʒ], as in: τσάι ['tsai, ↑'tʃ-] (Turkish *çay* ['tʃʌɪ]), τζαμί [dza'mi, ↑dʒ-] (Turkish *cami* [dʒʌ'mi]). We include these xenophonemes, mainly because some speakers might use them. Similarly, for traditional, neutral, and mediatic accents: '/tʃ, dʒ/' [tʃ, dʒ] (also for '/ʃ, ʒ/' dealt with below).

8.3. As for the *constrictives*, we have five (diphonic) pairs: /f, v; θ, ð; s, z; ç, ʝ; x, ɣ/. Examples: φίλος [ˈfiˑlɔs], αὐτός [afˈtɔs], ψεύτης [pˈsɛftis], ευθύνη [ɛfˈθiˑni], βέβα-ια [ˈvɛˑvɛa], κρεββάτι [krɛˈvaˑti], αύριο [ˈaˑvriɔ], αβγό [avˈɣɔ]; θέλω [ˈθɛˑlɔ], Αθήναι [aˈθiˑnɛ], έθνος [ˈɛθnɔs], δέκα [ˈðɛˑka], παιδί [pɛˈði], δρόμος [ˈðrɔˑmɔs]; σειρά [siˈra], δάσος [ˈðaˑsɔs], σκλάβος [sˈklaˑvɔs], σλάβος [sˈlaˑvɔs], σμήνος [zˈmiˑnɔs], κόσμος [ˈkɔzmɔs], ζέστη [ˈzɛsti], μαζί [maˈzi], Ισραήλ [ˌizraˈil]; χέρι [ˈçɛˑri], χύμα [ˈçiˑma], χιόνι [ˈçɔˑni], αρχή [arˈçi], παχιά/-χυά [paˈça], γένοσ [ˈʝɛˑnɔs], γείσο [ˈʝiˑsɔ], γυάλα [ˈʝaˑla], γιαγιά [ʝaˈʝa], γειά [ˈʝa], χάνω [ˈxaˑnɔ], χορός [xɔˈrɔs], χρεία [ˈxria], γάτα [ˈɣaˑta], γόνατο [ˈɣɔˑnatɔ].

Sometimes, but not necessarily (since, again, they are often felt to be rather far--fetched), loanwords may present the *xenophonemes* ‘/ʃ, ʒ/’ [ʃ, ʒ] (in international pronunciation, or [ʃ, ʒ] in the other three accents), as in: σοκολάτα [ˌsɔkɔˈlaˑta, ↑ʃ-] (French *chocolat* [ʃɔkɔˈlʌ]), σόκιν [ˈsɔˑcin] ↑[ˈʃ-, -iɲ] (English *shocking* [ˈʃɒk-ɪŋ]), γκαράζ [ɡaˈraz, ↑-ʒ] (French *garage* [ʝʌˈʁʌːʒ]), ζελέ [zɛˈlɛ, ↑ʒ-] (French *gelée* [ʒɛˈle]).

8.4. According to the ‘natural phonic’ point of view, among the Greek phonemic consonants, we also include a palatal *approximant*, /j/ [j], (which can be realized as a semiapproximant, [ʝ], as well). It can certainly be kept distinct from /ʝ/ [ʝ], even when realized as a semiconstrictive, [ʝ].

In fact, in addition to tendentially traditional pronunciation, mostly with [ʝ], we can surely also find [j], mainly when even katharevousa words are uttered in a more (modern neutral) colloquial way, with /iV/ [iV] generally becoming /jV/ [jV] (not necessarily /ʝV/ [ʝV], nor [ʝV]).

We necessarily include even another xenophoneme, /w/ [w], which can alternate with /u/, as in ουίσκι (whisky) [uˈisci, ↑ˈwisci], also used, as a stylephoneme, in exclamations and onomatopoeias, as ουαί! [uˈɛ, ↑ˈwɛ], ουάου (wow!) [uˈau, ↑ˈwau], ουά! [uˈa(a), ↑ˈwa(a)].

8.5. There is one *rhotic* phoneme, /ɾ/ [ɾ] ([r] when preceded by an obstruent): ράμ-μα [ˈraˑma], θαρρώ [θaˈrɔ], τρέχω [ˈtrɛˑxɔ], άντρας [ˈandras], κρασί [kraˈsi], χρονιά [xrɔˈɲa], γρύλος [ˈɣriˑɲos]. In international pronunciation, [r] is not strictly needed; that is why it does not appear in the table.

International Greek has two *lateral* phonemes, /l, ʎ/ [l, ɭ; ʎ]: λέγω [ˈliˑɣɔ], γυαλί [jaˈli], λάδι [ˈlaˑði], άλλος [ˈaˑlɔs], άλσος [ˈalsɔs], ελπίδα [ɛlˈpiˑða], μαλλιά [maˈʎa], κιάλια [ˈcaˑʎa], παλιό [paˈʎɔ].

Of course, it is more ‘natural’ not to consider /ʎ/ as if it were /lʝ/, also because, in non-neutral accents, we very often find even /li/ [ʎi] (followed or not by a tautosyllabic vowel): φίλημα [ˈfiˑlima, ↓ˈfiˑʎima], φίλιος [ˈfiˑliɔs, ↓ˈfiˑʎɔs], λιμάνι [liˈmaˑni, ↓ʎiˈmaˑɲi]. Also notice [↓-ɲi], since even for /ni/ [ni] there are non-neutral realizations, as we already know, as in: νύχτα [ˈnixta, ↓ˈɲix-], or ελληνική [ˌɛliniˈci, ↓ˌɛʎi-ɲiˈci], while we correctly have νιάτα [ˈɲaˑta].

Notice that the velar phonemes become prevelar when occurring after /i, ɛ/ in checked syllables, as in ικμάδα [ikˈmaˑða] (and νύχτα, just seen), or συγκοπή [ˌsiŋɡɔˈpi] (also note: σύγκελλος [ˈsiɲɟɛlɔs], fully assimilated).

## The consonants of *traditional* (or katharevousa) Greek

8.6. Also this Greek accent is somehow simplified, because it was considerably controlled and imposed, with fewer oscillations for the speakers who wanted (or tried) to use it – *fig* 8.2.1-2. As the international variant, this also has constrictive phones (rather than semiconstrictive), although having more realistic places of aticulation. Such as: dentalveolar [n̪; ts, dz; s, z; ɫ], and *post*palatal [ɲ; c, ɟ; ç, ʝ], including *pro*palatal [ɲ̟, ʎ̟] (instead of simply dental and palatal), and a trilled version of /ɾ/ [r] in tautosyllabic /Cɾ/ clusters with obstruents, [Cr], in either stressed, or unstressed, syllables. Also nasal taxophones are more precise, as can be seen. The xenophonemes are included, too, in case they are needed: /tʃ, dʒ; ʃ, ʒ/ (& /j, w/).

*fig* 8.2.1. Traditional Greek consonants.



*fig* 8.2.2. Traditional Greek consonants: different orograms.



## The consonants of *neutral* (or modern demotic) Greek

8.7. Let us definitely consider, now, the consonants of the neutral Greek accent, as *fig* 8.3.1-2 shows. In addition to more precise articulations, what is more important to realize is that, instead of constrictives, we generally find semiconstrictive articulations: [f, v; θ, ð; ʂ, ʐ; ɥ, ʝ; ʜ, ɣ] (with slit *pro*dental [θ, ð]). The three nasals have six taxophones (see the table).

*fig* 8.3.1. Neutral Greek consonants.

*fig* 8.3.2. Neutral Greek consonants: different orograms.

ņ  ļ  ʎ̥  f v

θ ə̬  ş ź̧  ʃ ʒ  н̩ ɪ̥

н̩ ɣ̥  н ɣ  ʦ̧ ʤ̧  ʧ̧ ʤ̧

However, it must be clearly said that certain oscillations exist between semi-constrictives and true constrictives. Actually, also in traditional (katharevousa) pronunciation, in spite of being definetly more controlled, semiconstrictives could also occur, alternatingly, although less frequently. The contrary is true for neutral pronunciation.


## The consonants of *mediatic* Greek


*fig* 8.4.1. Mediatic Greek consonants.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| m [m̥] | | [ɱ] | n [n̪] | | [ŋ] | [ŋ] | | | |
| p b | | | t d | | | [k g] | k g | | |
| | | | ʦ ʣ | | | | | | |
| | f v | θ ð | s z | | j [x ɣ] | x ɣ | | | |
| | | | | | [j] | | | | |
| *Minimal* | | | [l] ɾ [r]-l [l̪] | | | | | | |

*Additional* (phonetic chart)

| [m̥a] [m̥] | [ɻa] [ɻ̊a] [ʁa] [ɳa] [ɳ̊a] [ɲa] [ɲ̥a] [ʝa] [ʝ̊a] [ŋa̬] [ŋ̥] | [χ ʁ] |
|---|---|---|

[θ ð̬] [s̪ z̪] [ş z̧] [ş z̧] [ş z̧] (ʃ ʒ) [ş z̧] [ç j] [ç̊ j̊]
[f v] [θ ə̬] [θ ð] [s̪ z̪] [s̪ z̪] [ş z̧] [ş z̧] [ş z̧] [ş z̧][н̩ i̥] [н̩ ɪ̥] [н ɣ̥] [н ɣ] [χ ʁ]
[ç z] [h̥ ɪ] (w)
*Additional* [s-l] [l̪] [ʎ] [ʎ̥] [χ ɾ̥ ʁ]

*Total* (phonetic chart)

| [m̥a] [m̥] | [ɻa] [ɻ̊a] [ʁa] [ɳa] [ɳ̊a] [ɲa] [ɲ̥a] [ʝa] [ʝ̊a] [ŋa̬] [ŋ̥] | |
|---|---|---|
| m [m̥] | [ɱ] [ɱ̥] n [n̪] [n̪̥] [ɳ] [ɳ̥] [ɲ] [ɲ̥] [ŋ̬] [ŋ] | |

p b    t d    [c ɟ] [c̊ ɟ̊] [k g] k g
ʦ ʣ [ʦ ʣ][ʦ ʣ] ʦ ʣ [ʦ ʣ] (ʧ ʤ)
f v [θ ð̬] θ ð s z [s z] [ş z] ş z [ş z] (ʃ ʒ) [ş z̧] [ç] j [ç̊ j̊] [x ɣ̥] x ɣ [χ ʁ]
[f v] [θ ə̬] [θ ð] [s̪ ź] [s̪ ź] [ş ź] [ş ź] [ş ź] [ş ź][н̩ i̥] [н̩ ɪ̥][н ɣ̥][н ɣ] (w)
[ç z] [h̥] j [ɪ]
*Total* [l] ɾ [r z]-l[l̪] [l̪] [l̪] [ʎ] [ʎ̥] [χ ɾ̥ ʁ]

8.8. Let us pass, now, to *mediatic* Greek pronunciation. As it is usual with mediatic accents in all languages, its realizations derive from the attemps generally

*fig* 8.4.2. Mediatic Greek consonants: different orograms.

made by different regional speakers, who try to become actual neutral speakers, without fully succeeding in their efforts.

It is no wonder, then, if we find a considerable number of possible different realizations for the phonemes we saw in *fig* 8.4.1-2.

Thus, it is more convenient to present them in three different tables. The first one simply shows the *minimal* inventory, whose main peculiarity consists in the prevelar phones shown, [ŋ; k̪, g; x, ɣ], which can realize our /ɲ; c, ɟ; ç, ʝ/ before /i, ɛ/ (including /ɲC/ sequences, [ŋC]). Furthermore, they also occur before /a, ɔ, u/, possibly realizing our 'palatal' phonemes also as [Cj] sequences, [k̪j, gj; xj, ɣj] (including [ŋ-, ŋ-], respectively after front or non-front vowels).

As in international and traditional accents, the constrictives are shown as true constrictive phones, although we will soon see, in the *additional* table, that a large number of both constrictive and semiconstrictive contoids are quite common in this accent. Also /r/ [ɹ] (approximant) or [s] (*ie* [ɾ] with incomplete contact) can be found.

Therefore, a close examination of all phones placed in this table is certainly useful and necessary, before considering the *total* table, which includes all of them. It is particularly interesting to accurately notice the large range of possibilities especially for /s, z/ (and /ts, dz/): dental, dentalveolar, lamino-alveolar, apico-alveolar, back-apico-alveolar.

Among the many possibilities for /f, v; θ, ð; s, z/, let us notice that often, in syllable-final position, but mostly in word-final position, we can also find [ʂ, ʐ; ʃ, ʒ].

Let us also carefully consider the other phones (in the table), which are placed either before or after the grooved ones, just seen. Notice the different possible realizations for /c, ɟ; ç, ʝ/ (from palatal, and postpalatal, to prevelar), and also those for /ɲ; ʎ/ in '/CjV/' sequences: [n̠, ṋ, ɲ; l̠, ḽ, ʎ] (prepalatal, propalatal, palatal).

### Synoptic presentation of the consonant elements for the four Greek accents

8.9. Here, we think it useful to synoptically present the Greek consonantal phonemes that we use in this book. In our main transcriptions, we chose to propose the *international* accent of Greek.

In fact, although it is somewhat simplified, still, it is closer to the phonemic system which appears to be more convenient for foreign learners. In addition, it provides a more useful description of the language in both a practical and scientific way.

Arguably, as we have already said, the best way to present it consists in clearly separating it from the traditional Greek spelling, which –undeniably– is more fit for etymological than phonic considerations.

We are deeply convinced that a 18-consonant-phoneme system is far from being the best one (someone has even proposed one with only 15 consonants!). However, it is still the predominant one, even in recent treatises, and based more on some kind of 'conjuror lucubrations' by people who passively accepted the obviously complicated and misleading inconsistencies of the traditional Greek spelling.

Thus, our own phonemic consonant system has 26 elements (in addition to 5 vowels, /i, ɛ, a, ɔ, u/, and, at least, 5 further consonant xenophonemes, /tʃ, ʤ; ʃ, ʒ; w/. In addition, there are the taxophones, which can be seen in our tables and orograms.

Once we get accustomed to its 'many' (certainly not 'too many') but useful and necessary phonemes, the phonic structure of this nice language will certainly appear clearer and simpler. It would be very useful to produce a real *Greek pronouncing dictionary* with 27 (dia)phonemes, including /j̯/ [j̯, i̯, j], /j/ [j, i], /i/ [i].

Of course, we will not ignore the different realizations existing between the *international* accent (*i*) and the *traditional* (*t*, which we might still call *katharevousa*, to avoid possible ambiguities), *neutral* (*n*, or modern *demotic*), and *mediatic* (*m*) ones.

In fact, each single native speaker may oscillate, more or less frequently, between all these peculiar realities, in addition to the six *regional* accents, which we describe in Ch 13.

This also happens in the existing teaching recordings, even those specifically prepared for pronunciation, undeniably.

However, starting from the international accent, it is quite possible to see the main differences that we can certainly find by listening to the other accents. This is also true, of course, of the vowels dealt with in Ch 6 (and, again, in Ch 13). Arguably, also the intonation patterns of the accents dealt with must be considered (cf Ch 10 & Ch 13).

In spite of what especially native phoneticians might think (perhaps somewhat hastily), the *international* accent, if used systematically, may be a good choice even for Greek native speakers, better than the frequent *mediatic* one, or than the élitist *neutral* one, and certainly even than the more and more detested *traditional* one. It is a fact, we think, that even most native speakers, including phoneticians, will be surprised at the impressive number of actual contoids presented here.

Thus, let us consider systematically all our 26 Greek consonantal phonemes, adding their inevitable /mb, nd, nɟ, ng, nʣ/ sequences. Of course, all their tables and orograms are shown in the sections before this § 8.9.

/m/ $^{i/t/n}$[m, ɱ], $^m$[m, ɱ, ɱ, ŋ̊],

/n/ $^i$[n, m, ɱ, ɳ, ɲ, ŋ̊, ŋ], $^t$[n, m, ɱ, ɳ, ɳ̊, ɲ̊, ɲ, ŋ̊, ŋ], $^n$[n, m, ɱ, ɳ, ɲ, ɲ̊, ɲ, ŋ̊, ŋ],
    $^m$[n, ɳ, m, ɱ, ɱ, ŋ̊, ɳ, ɳ̊, ɳ̊, ɳ̊, ɳ, ɳ̊, ɲ, ɲ̊, ɲ, ɲ̊, ŋ̊, ŋ̊, ŋ, ŋ̊],

/ɲ/ $^i$[ɲ], $^{t/n}$[ɲ̊], $^m$[ɲ, ɲj, nj; ɲ̊],

/p/ $^{i/t/n}$[p], $^m$[p, b̥, ↓b],
/b/ $^{i/t/n/m}$[b],
/mb/ $^i$[mb], $^t$[~b], $^n$[~b; b], $^m$[mb, ɱb, ~b, b] ([m$^#$b, ɱ$^#$b, $^#$~b, $^#$b] ↓[m$^#$p, ɱ$^#$p, $^#$p]),
/t/ $^{i}$/k/$^n$[t], $^m$[t, d̥, ↓d],
/d/ $^i$/k/n[d], $^m$[d],
/nd/ $^i$[nd], $^t$[~d], $^n$[~d; d], $^m$[nd, ɳd, ~d, d] ([n$^#$d, ɳ$^#$d, $^#$~d, $^#$d] ↓[n$^#$t, ɳ$^#$t, $^#$t])
/c/ $^i$[c], $^{t/n}$[c̥], $^m$[k, k̟j, k̟ç, kç, c̥, c, ɟ̥, ɟ̥j, ɟ̥ɟ, ɟ̥ɟ, ɟ̥, ʝ] ↓[ɟ, ɟj, ɟɟ, ɟɟ, ɟ, ʝ],
/ɟ/ $^i$[ɟ], $^{t/n}$[ɟ̥], $^m$[ɟ, ɟj, ɟɟ, ɟɟ, ɟ, ʝ],
/nɟ/ $^i$[ɲɟ], $^t$[~ɟ], $^n$[~ɟ; ɟ], $^m$[ŋg, ŋgj, ~ɟ, ~ɟj, ɟ, ɟj, ɲɟ, ɲɟ, ~ɟ, ɟ, ɲɟ, ɲɟ, ~ɟ, ɟ] ([ŋ$^#$g, ŋ̊$^#$gj,
    $^#$~ɟ, $^#$ɟ, ɲ$^#$ɟ, $^#$ɲɟ, $^#$~ɟ, $^#$ɟ, ɲ$^#$ɟ, ɲ$^#$ɟ, ~ɟ, ɟ] ↓[ŋ$^#$k, ŋ̊$^#$k, $^#$k, ɲ$^#$c̥, ɲ$^#$c̥, $^#$c̥, ɲ$^#$c, ɲ$^#$c, $^#$c]),

/k/ $^{i/t/n}$[k, k̟], $^m$[k, k̟, g̊, g̟̊] ↓[g, g̟],

/g/ $^{i/t/n/m}$[g, g̟],

/ng/ $^i$[ŋg, ŋ̟g̟], $^t$[~g; g̟], $^n$[~g; g̟], $^m$[ŋg, ŋ̟g̟, ŋ̟g̟, ~g, g̟] [-g] ([ŋ$^\#$g, ŋ̟$^\#$g, ŋ̟$^\#$g, ~g, g̟] [-g] ↓[ŋ$^\#$k, ŋ̟$^\#$k, ŋ̟$^\#$k, $^\#$k̟] [-k̟]),

/ts/ $^i$[ts], $^t$[ts], $^n$[tʂ], $^m$[ts, ts, tʂ, tʂ, tʂ],

/dz/ $^i$[dz], $^t$[dz], $^n$[dʐ], $^m$[dz, dz, dʐ, dʐ, dʐ],

/ndz/ $^i$[ndz], $^t$[~dz], $^n$[~dʐ; dʐ], $^m$[ndz, n̠dz, n̠dʐ, ndʐ, ndʐ] ([n$^\#$dz, n̠$^\#$dz, n̠$^\#$dʐ, n$^\#$dʐ, n$^\#$dʐ] ↓[n$^\#$ts, n̠$^\#$ts, $^\#$ts, n̠$^\#$ts, n̠$^\#$ts, n̠$^\#$tʂ, n̠$^\#$tʂ, $^\#$tʂ, n$^\#$tʂ, n̠$^\#$tʂ, $^\#$tʂ, $^\#$tʂ]),

/f/ $^{i/t}$[f], $^n$[f], $^m$[f, f̬],

/v/ $^{i/t}$[v], $^n$[v], $^m$[v, v̬],

/θ/ $^{i/t}$[θ], $^n$[θ], $^m$[θ, θ̬, θ, θ̬],

/ð/ $^{i/t}$[ð], $^n$[ə], $^m$[ð, ð̬, ə, ð̬],

/s/ $^i$[s], $^t$[s], $^n$[ʂ], $^m$[s, ş, s, ş, ʂ, ʂ̬, ʂ, ʂ̬, ʂ, ş, ʃ, ş, ş, ç$^\#$],

/z/ $^i$[z], $^t$[z], $^n$[ʐ], $^m$[z, ź, z, ź, ʐ, ʐ̬, ʐ, ʐ̬, ʐ, ź, ʒ, ʐ, ź],

/ç/ $^i$[ç], $^t$[ç], $^n$[ɦ], $^m$[x, xjɣ̆, ç, ç],

/j/ $^i$[j, i̯], $^t$[j, ɹ], $^n$[ɻ], $^m$[ɣ̆, ɣjɣ̆, ɻ, i̯, i̯, j],

/Cj/ $^i$[Ç̮j, Ç̮i̯], $^t$[Ç̮i̯], $^n$[Ç̮i̯], $^m$[Ç̮j̊, Ç̮ɦ, Ç̮j̊, Ç̮ɦ],

/mj/ $^i$[mj], $^t$[mĩ̯], $^n$[mĩ̯], $^m$[mɲ, mĩ̯, mj],

/x/ $^{i/t}$[x, x̟], $^n$[ɦ, ɦ̟], $^m$[x, x̟, ɦ, ɦ̟, χ, χ̟],

/ɣ/ $^{i/t}$[ɣ, ɣ̟], $^n$[ɣ, ɣ̟], $^m$[ɣ, ɣ̟, ɣ, ɣ̟] ([ʁ, ʁ̞, ʁ̞] /ɣr/ [ɣɾ, ɣɾ; ɣɾ; ɾ]),

/r/ $^i$[ɾ], $^{t/n}$[ɾ, Cr], $^m$[ɾ, r, s, ↓z, Cr, Cɾ, Cs, ↓Cz],

/l/ $^i$[l, ɫ; ʎ], $^t$[l, ɫ, ɭ, ɭ̥], $^n$[l, ɫ, ɭ, ɭ̥; ʎ], $^m$[l, ɫ, ɫ, ɭ, ɭ̥; ʎ] (↓[ɫ, ɫ, ɫ, ɫ]),

/ʎ/ $^i$[ʎ], $^{t/n}$[ɭ̥], $^m$[ɭ̥, lj, lj; ʎ].

8.10. As far as we know, the Λεξικό της κοινής νεοελληνικής, although not a real pronouncing dictionary for Greek, is the only sufficiently reliable tool for pronunciation. But let us 'translate' some of its somewhat puzzling 'transcriptions' (others will be dealt with in our Bibliography).

Consider the following 'sect formulae', which we prepared according to some of its entries. We show the international, traditional, and neutral accents, with their different realizations (only here). We omit to provide the transcriptions for the mediatic accent, which has so many different possibilities that would make transcriptions too long.

However, it will certainly be a good and useful exercise for our interested readers to provide such transcriptions by themselves, by carefully looking in § 6.6. & § 8.8 (and, necessarily, in *fig* 6.4-5.1-3 & *fig* 8.4.1-2):

1) '[V̯i, V̯́i]' = $^{i/t/n/m}$/Vi, ˈVi/;
2) '[iV̯, iV̯́]' = $^{i/t/n/m}$/iV, iˈV/;
3) '[iV̯, iV̯́]' = $^i$[jV, ˈjV], $^t$[iV, iˈV], $^n$[i̯V, ˈjV], $^m$[ˈjV, iˈV];
4) '[ii, ií]' = $^i$[i$^{(i)}$i, $^{(i)}$ji, $^{(i)}$ɹ̠i], $^t$[i$^{(i)}$i, $^{(i)}$ɹ̠i], $^n$[i$^{(i)}$i, $^{(i)}$ɹ̠i], $^m$[i$^{(i)}$i, $^{(i)}$ɹ̠i, $^{(i)}$ji, $^{(i)}$ji];
5) '[jiV, jíV]' = $^i$[$^{(i)}$jV, $^{(i)}$ɹ̠V], $^t$[$^{(i)}$ɹ̠V, $^{(i)}$ɹ̠iV], $^n$[$^{(i)}$ɹ̠V, $^{(i)}$ɹ̠iV, $^{(i)}$iV], $^m$[$^{(i)}$ɹ̠V, $^{(i)}$ɹ̠V, $^{(i)}$jiV, $^{(i)}$iV];
6) '[jV, jV́]' = $^i$[$^{(i)}$jV, $^{(i)}$ɹ̠V], $^t$[$^{(i)}$ɹ̠V, $^{(i)}$ɹ̠V], $^n$[$^{(i)}$ɹ̠V, i$^{(i)}$V], $^m$[i$^{(i)}$V, $^{(i)}$jV, $^{(i)}$ɹ̠V, $^{(i)}$ɹ̠V].

8.11. Here are some useful examples, showing the most typical variants (except the very many for the mediatic accent, which can be found in § 8.8, and § 6.6):

αϊδόνι '[ai̯ðóni]' *i/t*[ai̯'ðσni] *n*[ai̯'ðɔˑni],

χάιδεμα '[xai̯δéma]' *i/t*[xai̯'ðɛˑma] *n*[xai̯'ðɛˑma],

διαμιάς '[ði̯amñás]' *i*[ðiam'ɲas] *t*[ðiam'ɲas] *n*[ði̯am'ɟ̠aʂ],

βοήθεια '[voíθi̯a]' *i*[vσ'iˑθia] *t*[vσ'iˑθia; vo-] *n*[vσ'iˑθia],

αντρειεύω '[andri̯évo]' *i*[ˌandri'ɛˑvσ] *t*[ˌandri'ɛˑvσ; -vo] *n*[ˌandri'ɛˑvo],

αντρειοσύνη '[andri̯osíni]' *i*[ˌandriσ'siˑni] *t*[ˌandriσ'siˑni; -io-] *n*[ˌandriσ'ʂiˑni],

διόλου '[ði̯ólu]' *i/t*[ði'σˑlu] *n*[ði'ɔˑlu],

βοϊδάμαξα '[vo̯iðámaska]' *i*[vσi̯'ðaˑmaksa] *t*[vσi̯'ðaˑmaksa; voi-] *n*[vσi̯'ðaˑmakʂa],

βόιδι '[vói̯δi]' *i/t*['vσi̯ði] *n*['vσi̯ði],

άγιος '[áj(i)os]' *i*['aˑjσs] *t*['aˑʝσs] *n*['aˑʝoʂ],

αγιολόγιο '[ajiolójio]' *i*[ˌajσ'lσˑjσ] *t*[I] *n*[I] *m*[I],

αγιοποιώ '[ajiopió]' *i*[ˌajσ'pjσ] *t*[ˌaʝσ'pʝ̠σ], *n*[ˌaʝσ'pʝ̠σ],

αγιογδύτης '[ajioɣðítis]' *i*[ˌajσɣ'ðiˑtis] *t*[ˌaʝσɣ'ðiˑtis] *n*[ˌaʝσɣ'ðiˑtiʂ],

καρδιολογία '[karðiolojía]' *i*[karˌðjσlσ'ʝia] *t*[ˌkarðiσlσ'ʝia] *n*[ˌkarðiσlσ'ʝ̠ia],

καρδιά '[karδjá]' *i*[kar'ðj̠a] *t*[kar'ðj̠a] *n*[kar'ðɟ̠a],

διορία '[ðioría]' *i*[ðjσ'ria] *t*[ðiσ'ria] *n*[ðiσ'ria],

διόδια '[ðióðia]' *i*['ðj̠σˑðja] *t*[ði'σˑðia] *n*[ði'σˑðia],

δίοδος '[ðíoðos]' *i*['ðiσðσs] *t*['ðiσðσs] *n*['ðiσðoʂ],

δίοικα '[ðíika]' *i/t*['ðiika] *n*['ðiika],

διοίκηση '[ðiíḱisi]' *i*[ði'iˑcisi] *t*[ði'iˑɕisi] *n*[ði'iˑɕiʂi],

διοικητήριο '[ðiiḱitírio]' *i*[ˌðiici'tiˑrjσ, ˌðji-] *t*[ˌðiiɕi'tiˑriσ, ˌðj̠i-] *n*[ˌðiiɕi'tiˑrio, ˌðj̠i-],

διοικώ '[ðiikó]' *i*[ðii'kσ, ðji-] *t*[ðii'kσ, ðj̠i-] *n*[ðii'kσ, ðj̠i-],

δύο '[ðío]' *i/t*['ðiσ] *n*['ðio],

δυο '[ðjó]' *i*['ðj̠σ, 'ðj̠σ] *t*['ðj̠σ, 'ðj̠σ] *n*['ðj̠σ, ði'σ],

μία '[mía]' *i/t/n*['mia],

μια '[mñá]' *i*['mja] *t*['mj̃a] *n*['mj̃a],

υιός '[iós]' *i*['jσs] *t*['j̠σs] *n*[i'ɔʂ, 'j̠ɔʂ],

ποιόν '[pión]' *i*['pj̠σn] *t*['pj̠σn] *n*['pj̠ɔn],

ποιος '[pj̃ós]' *i*['pj̠σs] *t*['pj̠σs] *n*['pj̠ɔʂ],

ποδιά '[poðjá]' *i*[pσ'ðj̠a] *t*[pσ'ðj̠a] *n*[po'ðɟ̠a],

πόδια '[póðia]' *i*[pσ'ðja] *t*['pσˑðia] *n*['pɔˑðia],

γίνομαι '[jínome]' *i*['jiˑnσmɛ, 'j̠i-] *t*['jiˑnσmɛ, 'j̠i-] *n*['ʝ̠iˑnome],

γενναίος '[jenéos]' *i*[jɛ'nɛσs, j̠ɛ-] *t*[j̠ɛ'nɛσs, ʝɛ-] *n*[ʝɛ'nɛoʂ],

μιζέρια '[mizérja]' *i*[mi'zɛˑrja] *t*[mi'zɛˑrj̠a, -rj̠a] *n*[mi'ʑɛˑrj̠a, -ria],

γιατρός '[jatrós]' *i*[ja'trσs] *t*[j̠a'trσs, j̠a-] *n*[j̠a'trɔʂ, ia-],

ιατρός '[iatrós]' *i*[ja'trσs] *t*[ia'trσs] *n*[ia'trɔʂ, ja-].

# 13.
# Regional accents

fig 13.01. Political map of Greece and Cyprus.
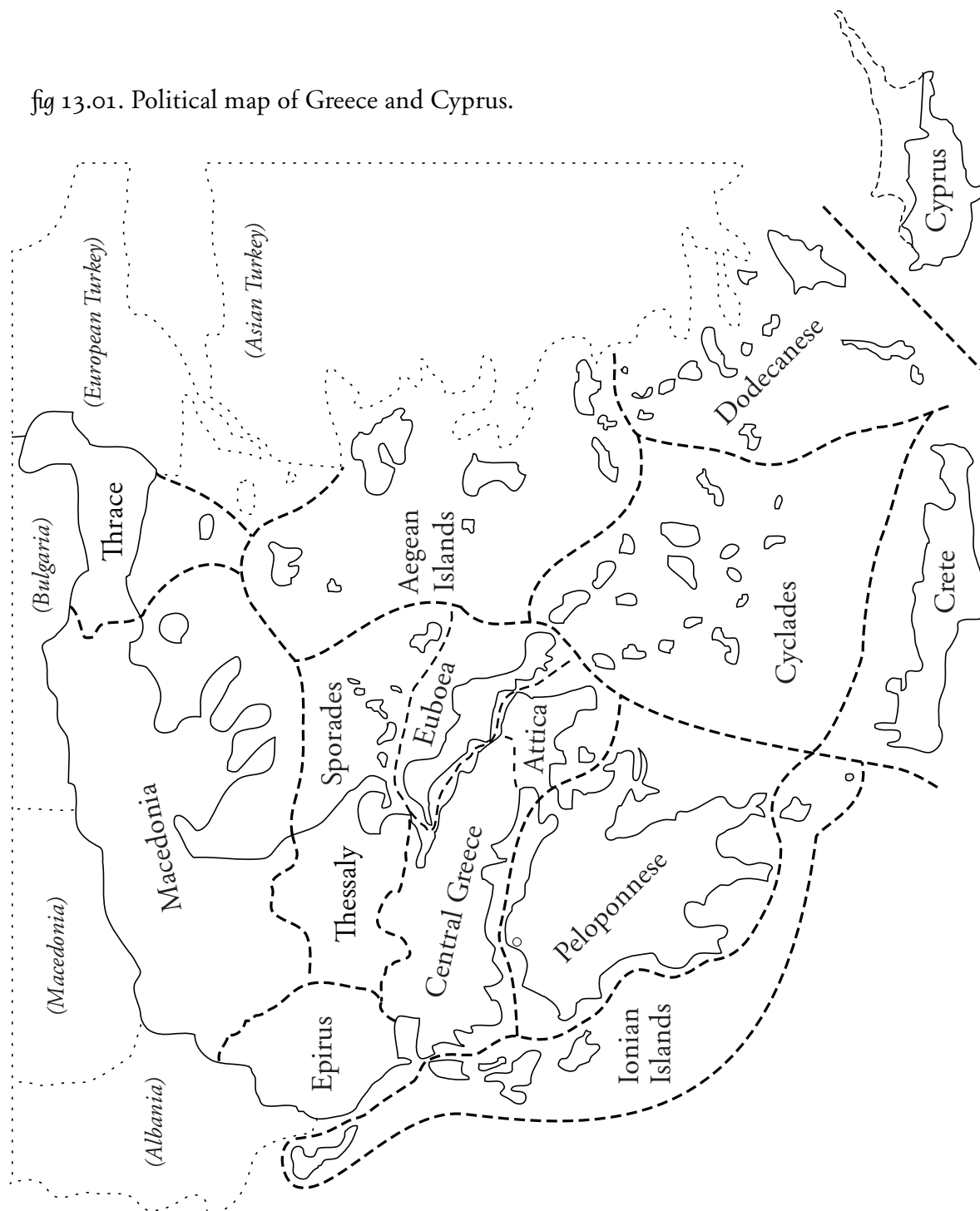
13.0. All figures show the vowels and intonation patterns of each of the six regional accents shown in the geophonic map of *fig* 13.2. Each figure should be carefully compared with the international, traditional, neutral, and mediatic ones.

As for the *consonants*, we will indicate the most peculiar realizations, although oscillations between different accents are certainly possible, for speakers and words

*fig* 13.01. Accent map of Greece and Cyprus.
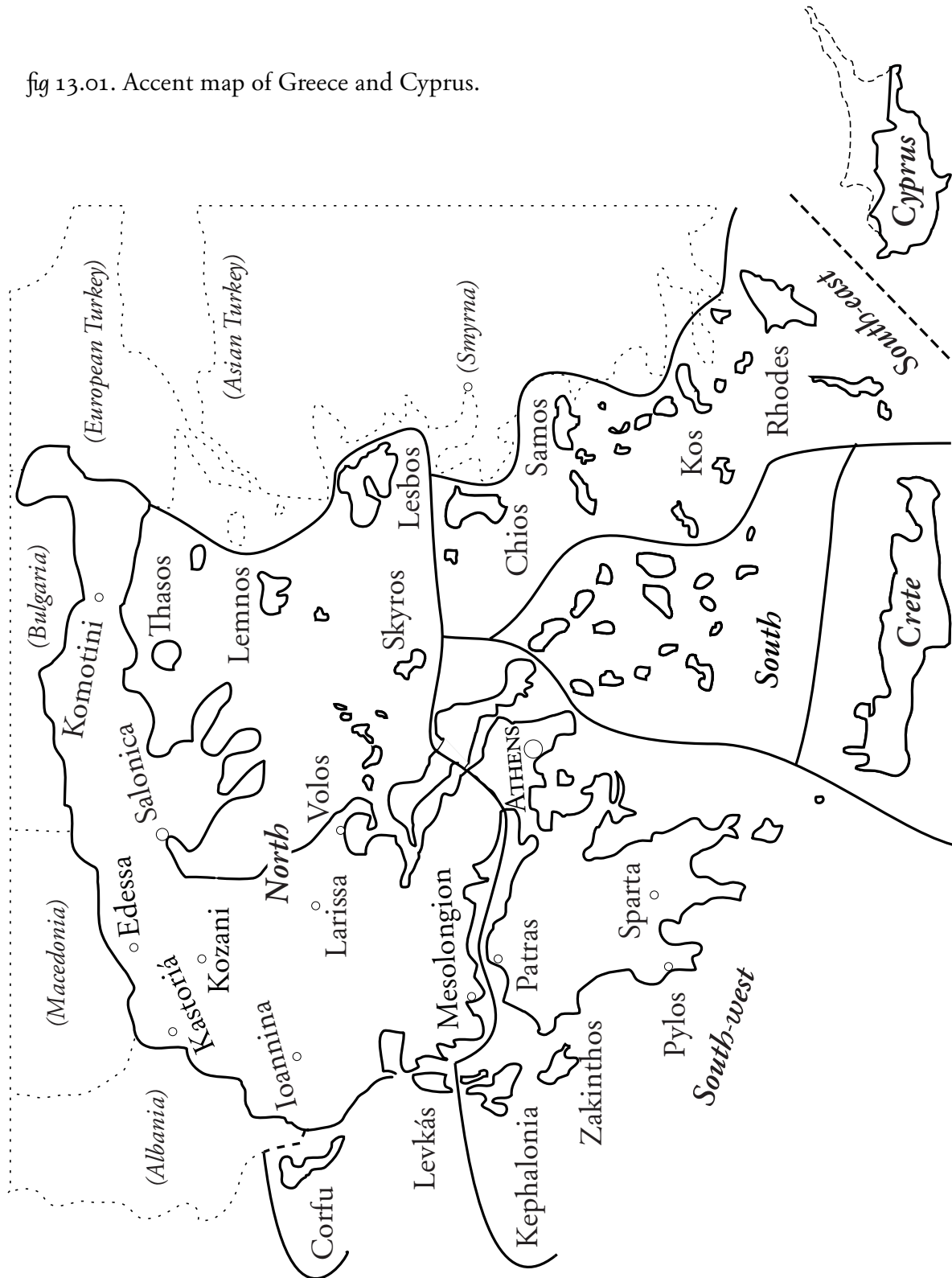
(including between the traditional, neutral, and mediatic accents).

We will mainly consider the nature of constrictives (or semiconstrictives), the quality of /s, z/, /c, ɟ; ç, ʝ/, /ɲ, ʎ/, /l/, /ɾ/, /b, d, g; ʣ/, syllable length. All this, will be done more or less explicitly in comparison with what has been said in Ch 6 & Ch 8-10.

## North (from Thrace to Lesbos & Corfu)

13.1. As *fig* 13.1 shows, final unstressed /i/ becomes [i̥, i̯, Ø], while unstressed word-internal /i, u/ may become [ɨ, ʉ]. Most typically, unstressed /ɛ, o/ tend to become /i, u/ with the taxophones shown.

Another broader peculiarity, which can be found in the North, is that, in stressed syllables, /ɛ, o/ may become [ɹe, ɥo] (even [je, wo]), in word-initial position, or after consonants.

The constrictives tend to be real constrictive more often than semiconstrictive. For /s, z/, [ʂ, ʐ] and [ʂ, ʐ] are rather frequent (even [ʂ, ʐ], and, in broader accents, [ʃ, ʒ] too), either sytematically, or in /ˈsC/ clusters with /p, t, k/; /c, ɟ/ can be [kç, gʝ; c̜, ɟ̜; k̟ʝ, g̟ʝ; k̚, g], /ç, ʝ/ [ç, ʝ; x, ɣ]. In addition, /ts, ʣ/ [tʂ, dʐ; tʂ, dʐ; tʃ, dʒ].

Besides, /n, l/ + /i/ [ni, n̠i, ɲi; li, l̠i, ʎi] (in broader accents, also with /ɛ/); /l/ [l, ɫ, ɬ] (in Thrace also [w]; at Corfu, we may find /li/ [ʎi], /lu/ [Lu]); /ɾ/ [ɾ, ɽ, z] (the sequence /CɾiV#/ may typically become [Cɾi̯V#, Cɾi̯V#]); /b, d, g; ʣ/ are often [Ç, ↑~Ç], while /n#Ç/ frequently remain [n#Ç] (with homorganic /n/); occasionally, /ts/ can be [tʂ], especially in Lesbo.

*fig* 13.1 adds the intonation patterns for Corfu, in addition to the more general nothern ones.

*fig* 13.2 shows further broader typical general variants, and for three north-western places.

*fig* 13.1.1. Greek Regional accent: North (from Thrace to Lesbos and Corfu).
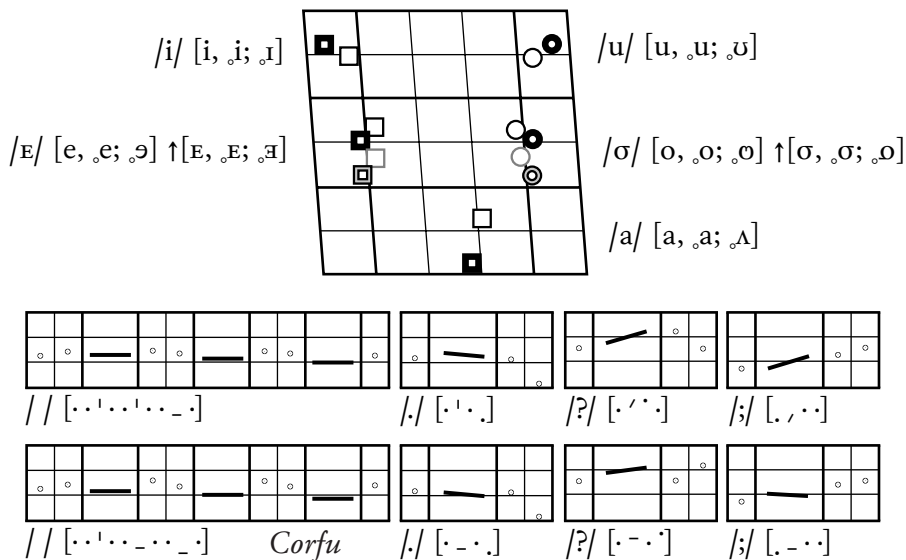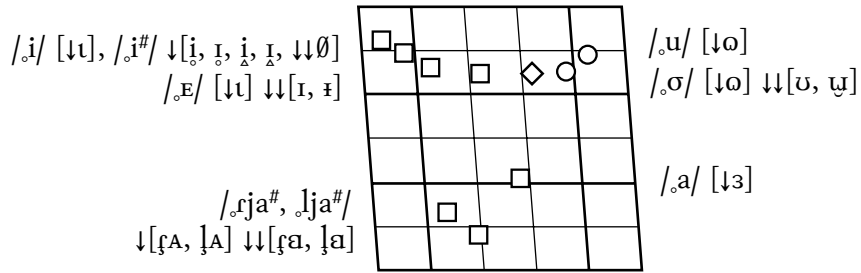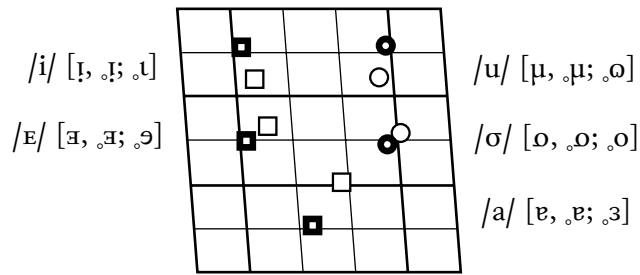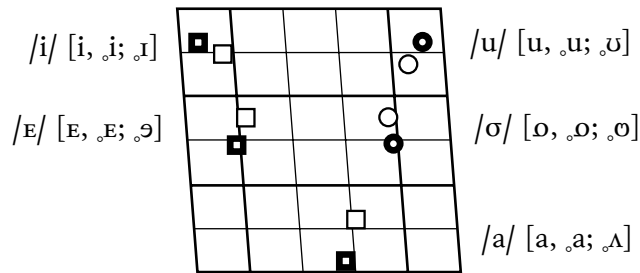
*fig* 13.1.2. Greek Regional accent: North broader and local accents.



/ˌi/ [↓ɪ], /ˌi#/ ↓[i̥, ɪ̥, i̠, ɪ̠, ↓↓∅]      /ˌu/ [↓ɷ]
/ˌe/ [↓ɪ] ↓↓[ɪ, ɨ]      /ˌo/ [↓ɷ] ↓↓[ʊ, ɥ]

/ˌɾja#, ˌlja#/      /ˌa/ [↓ɜ]
↓[ɾʌ, lʌ] ↓↓[ɾɑ, lɑ]

Broader North (Larissa)



/i/ [ɪ, ˌɪ; ˌɪ]      /u/ [ɥ, ˌɥ; ˌɷ]

/e/ [ɐ, ˌɐ; ˌə]      /o/ [ɔ, ˌɔ; ˌo]

/a/ [ɐ, ˌɐ; ˌɜ]

Broader North (Ioannina)



/i/ [i, ˌi; ˌɪ]      /u/ [u, ˌu; ˌʊ]

/e/ [ɛ, ˌɛ; ˌə]      /o/ [ɔ, ˌɔ; ˌo]

/a/ [a, ˌa; ˌʌ]

Broader North (Kozani)



/i/ [i, ˌi; ˌɪ]      /u/ [u, ˌu; ˌʊ]

/e/ [ɐ, ˌɐ; ˌə]      /o/ [o, ˌo; ˌɔ]

/a/ [ɐ, ˌɐ; ˌʌ]

### South-west: Athens (Attica, southern Euboea & Peloponnese)

*fig* 13.3 also shows broader realizations, in the second vocogram, including /ˌɲaꟸ, ˌʎaꟸ/ with frequent [ᴀ].

The constrictives tend to be semiconstrictive more often than constrictive. For /s, z/, [ʂ, ʐ] and [ș, z̦] are rather frequent, in addition to [s, z]; /c, ɟ/ can be [c̆, ɟ̆; ꝁɪ, ɡɪ; ꝁ, ɡ] (more rarely [kç, ɡ̞ɪ]); /ç, ʝ/ [ꞕ, ʝ̞; ꞕ, ɣ] (often /ꟸj/ [j]); /ɲ, ʎ/ [ɲ, ʎ; ȵ, ȴ], /ni, li/ [ni, ↓ȵi; li, ↓ȴi] (at Zakinthos, we may find /li/ [ʎi], /lu/ [ʟu]); /b, d, g; dz/ are generally [�̬Ç̬] or [Ç̬], rarely [ᴺÇ], while /nꟸÇ/ can be [nꟸÇ̬] or [nꟸÇ̭].

In addition to [ꞌVꟸ], we also find [ꞌV·ꟸ]. The typical *intonation* patterns are less lively than those in several island areas (especially Ionian and Aegean), and people from other areas describe them as highly monotonous.

*fig* 13.2. Greek Regional accent: South-west (Athens & Peloponnese).

/i/ [i, ˳ɪ; ˳ɪ̩]     /u/ [u, ˳ʊ; ˳ɰ]

/ɛ/ [ɛ, ˳e; ˳ɐ]     /o/ [o, ˳o; ˳o]

                    /a/ [a, ˳ɐ]

/ / [··ꞌ··ꞌ··ꞌ·]     /./ [·ꞌ··]     /?/ [·⁻··]     /;/ [·ꞌ··]

Broader South-west

/i/ [ɪ, ˳ɪ; ˳ɪ]     /u/ [ʊ, ˳ʊ; ˳ɯ]

/ɛ/ [ɐ, ˳ɐ; ˳ɐ]     /o/ [ɒ, ˳o; ˳o] ↓[ɞ, ˳ɵ]

/ˌɲaꟸ, ˌʎaꟸ/ [˗ᴀ]     /a/ [a, ˳a, ˳ɐ; ˳ɜ]
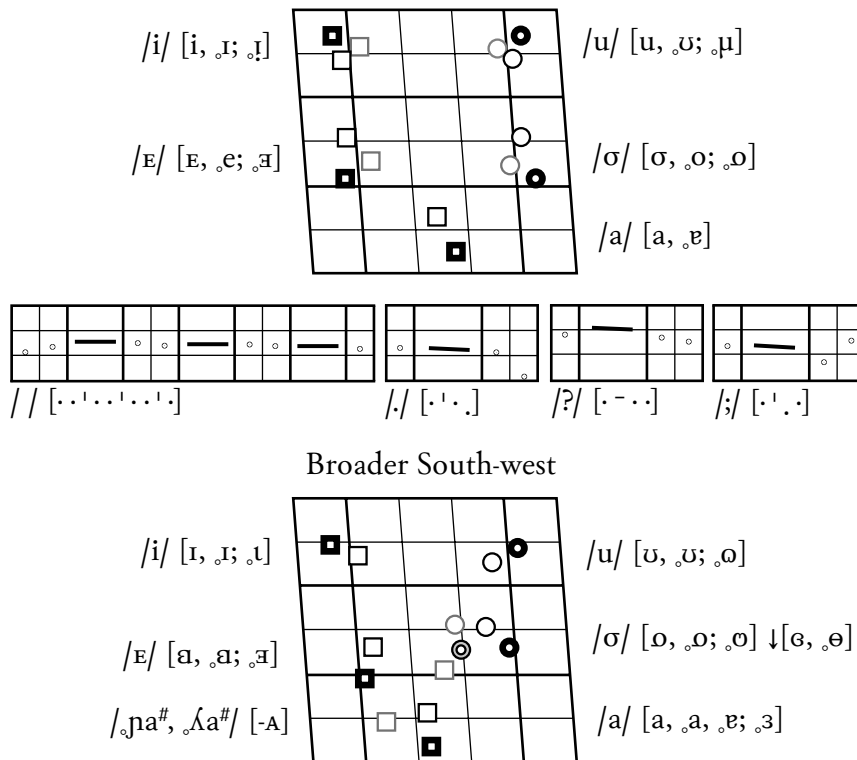
## South: Cyclades

13.3. Let us notice that /ˌɲa#, ˌʎa#/ frequently have [ʌ]. The constrictives tend to be semiconstrictive, with /f, v/ [f̞, v̞]; for /s, z/, [ṣ, ẓ; ŝ, ẑ] are frequent, in addition to [ṣ, ẓ]; /ç, ʝ/ [ḫ, ɣ̞; ʮ, ɣ̞]); after a pause, /f, v; θ, ð; s, z/ may be semistopstrictive: [ᵖf, ᵇv; ᵗθ,ᵈð; ᵗs, ᵈz].

For /c, ɟ/, we can have [c̟, ɟ̟; kç, ɡɟ; k̟ɟ, ɡɟ; k̟, ɡ] (more rarely [tʃ, dʒ]); /ɲ, ʎ/ [ɲ, ʎ; n̠, l̠; n̪, l̪]; /ni, li/ [ni, li] ↓[ɲi, ʎi; ɲi, ʎi]; /l/ also [ɫ] before back vowels; /r/ ['r̝, ɾ]; /b, d, ɡ; ʣ/ we can find [Ç], but more often [ᶜÇ], less often [~Ç] and [ᴺÇ] (with seminasals), while /n#Ç/ can be [(n)#Ç] or [(n)#Ç̬]; /Çʝ/ sequences are generally [Çḥ].

Geminates are common, as [ᶜC]. In addition to ['Vˑ#], we also find ['Vˑ#].

*fig* 13.3. Greek Regional accent: South (Cyclades).



/i/ [i, ˌɪ, ↑ˌi]                      /u/ [u, ˌʊ, ↑ˌu]

/ɛ/ [ɛ, ˌe]                          /ɔ/ [ɔ, ˌo]

                                    /a/ [a, ˌɐ]
                                    /ˌɲa#, ˌʎa#/ [-ʌ]

/ˈ/ [·· ' ·· ' ··' ·]    /./ [·' ..]    /?/ [· ‒ ··]    /;/ [·' ··]
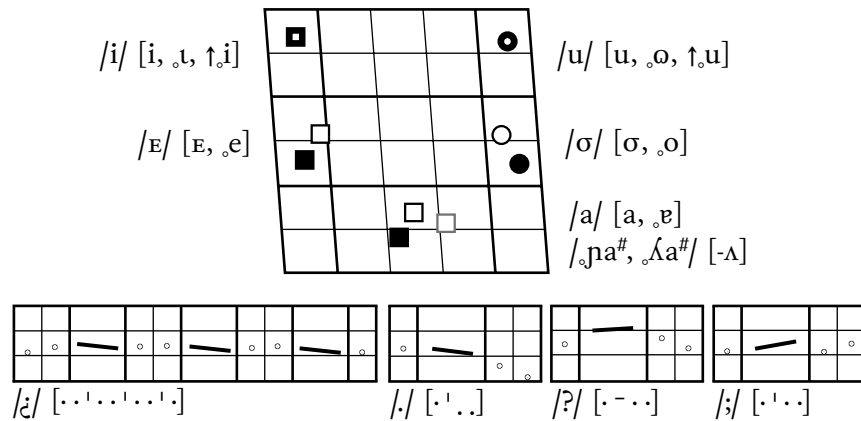
## Crete

13.4. Let us notice that /ˌɲaˬ, ˌʎaˬ/ frequently have [ʌ]. The constrictives tend to be either constrictive or semiconstrictive.

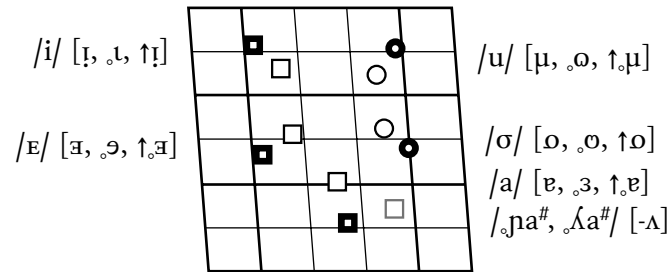For /s, z/, [ṣ, ẓ; ʂ, ʐ] are frequent, in addition to [ʂ, ʐ]; for /c, ɟ/, we can have [c̆, ɟ̆; k̟ɟ, ɡ̟ɟ; k̟, ɡ] (more rarely [kç, ɡʝ], or even ↓[tʃ, dʒ; tʃ, dʒ]); /ç, ʝ/ [ɧ, ʝ; ɥ, ɣ] (or ↓[ʄ, ʐ]; often /ˬj/ [j, ʝ]); /ɲ, ʎ/ [ɲ, ʎ; ɲ̟, ʎ̟; ɳ, ɭ]; /ni, li/ [ni, ↓ɲi; li, ↓ʎi]; /l/ also [↓ʎ] (and ↓↓[ɭ, ɫ, ɭ̩, ɫ̩]); /r/ [ɾ, r; ʐ]; /b, d, ɡ; ʣ/ we can find [Ç], [˷Ç], [ᶜ̌Ç], and [ᴺÇ], [ᴺÇ̌], while /nˬÇ̬/ can be [nˬÇ̬] or [nˬÇ̬].

Often the voiceless obstruents, /Ç̬/, become [Ç]; /VNˬ/ sequences can become [VN, ṼN, Ṽ], especially in unstressed syllables. In addition to [ˈVːˬ], we also find [ˈṼˬ] (and even [ˌVˬ] with /ʔ/), including possible [ˌV], in non-slow speech.

*fig* 13.4. Greek Regional accent: Crete.



/i/ [i, ˳ɪ, ↑˳i]      /u/ [u, ˳ɵ, ↑˳u]

/ɛ/ [ɛ, ˳ɜ, ↑˳ɛ]     /o/ [o, ˳ɵ, ↑˳o]

                     /a/ [ʌ, ˳ɐ, ↑˳ʌ]

(broader)

/i/ [ɪ, ˳ɪ, ↑ɪ]      /u/ [ʉ, ˳ɵ, ↑˳ʉ]

/ɛ/ [ɜ, ˳ɘ, ↑˳ɜ]     /o/ [ɔ, ˳ɵ, ↑ɔ]

                     /a/ [ɐ, ˳ɜ, ↑˳ɐ]
                     /ˌɲaˬ, ˌʎaˬ/ [-ʌ]

// / [··ˈ··ˈ··ˈ·]     /./ [·ˈ·.]     /?/ [·ˈˈ·]     /;/ [·ˌ··]
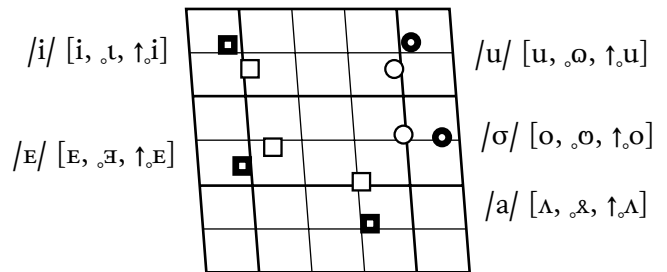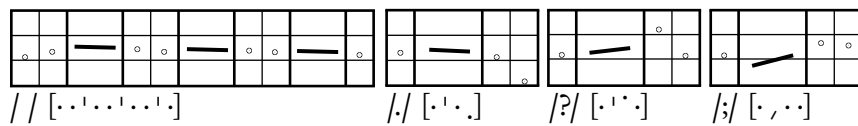
## South-east: the Dodecanese (& southern Aegean Islands, with Rhodes)

13.5. The constrictives tend to be real constrictive, in addition to possible semi-constrictive.

For /s, z/, [s, z] are more typical; /c, ɟ; ç, ʝ/ are [c̠, ɟ̠; k̟, ɡ̟] (or ↓[tʃ, dʒ; ʃ, ʒ]); /ɲ, ʎ/ are more [ɲ, ʎ; ɲ̠, ʎ̠].

Nothing particular has to be said about the other consonants, eccept that /p, t, c, k/ are typically [Cʰ], also in unstressed syllables (including [pʰ, tθ, kʰ, kʰ]).

Geminates are common, as [ᶜCʰ]. In addition to [ˈVːˑ], we also find [ˈVˑˑ].

*fig* 13.5. Greek Regional accent: South-east.

## Cyprus

13.6. In addition to real constrictives, also semiconstrictives are frequent. For /s, z; ts, ʣ/, [s, z; ts, ʣ] predominate (including very frequent [ts, dz]); for /c, ɟ/, we generally have [ƙj, ɡj; ƙj, ɡɟ; ƙ, ɡ] (or ↑[ɕ, ʑ], or [ƙɕ, ɡʑ], or ↓[tʃ, ʤ; tʃ, ʤ]); /ç, ʝ/ [ʜ, ʝ; ɧ, ɣ; x, ɣ] (or ↓[ʃ, ʒ]); /ɲ, ʎ/ are rather [ɲj, ɲj; ʎj, ʎj, ʎj], while we tend to have /ni, li/ [ni, li]; often the voiceless obstruents, /C̥/, become [C̥]. In addition to [$ˈCVː#$], we also find [$ˈCV·V#$], for the diphthongs, and [ˈCV(·)#] (but [ˈCV#$$, ˈCVV#$$].

Besides, we find the local or loan phonemes, shown in the table below, /ʃ, ʒ/ [ʃ, ʒ] (including /sj, zj/ ↓[ʃ, ʒ; ʂ, ʐ]); /t, d/ [t̪, d̪; ƫ, ɖ], /p, t, c, k/ can oppose /ph, th, ch, kh/ [Ch], also in unstressed syllables (including [pɸ, t̪θ, cç, kh]). /mj/ + /V/ [mɲ, mj]; /b, d, g, ʣ/ are [C] or [~C]; besides, /r, l/ + /C̥/ can typically become [ɾ̥, ɾ̥; l̥, l̥].

In addition, geminate consonants, /C̥C̥/, occur not only within words, but also at their beginning, even after a pause, generally as [C̥C̥h].

When enclitics are added to a stem, there is no stress shift. Notice that stress can also occur on the fourth from the last syllable (in addition to the third from the last, as in official Greek).

*fig* 13.6. Greek Regional accent: Cyprus.

13.7. There follow the 'new' consonant orograms, for contoids not yet found in previous chapters.

*fig* 13.7. Greek Regional accent: further new contoids.
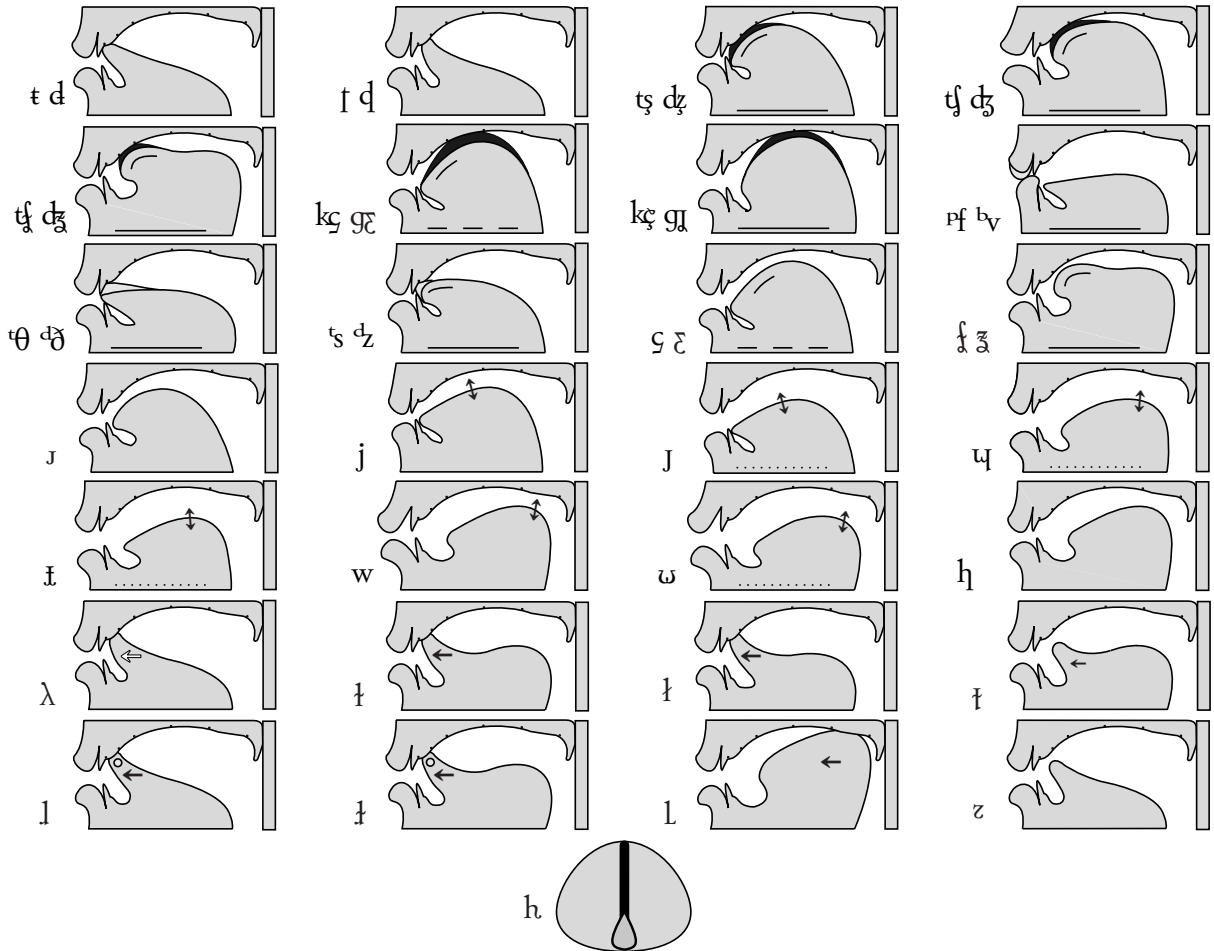
# 16.
# Ancient Greek pronunciation

16.1. *Ancient* or *'neutral' Classical Greek* (5-4th c. BC, used by Plato & Aristotle), had five vowels, both short and long (actually monotimbric diphthongs), with different qualities, as well as the thirteen phonemic diphthongs given in the second vocogram.

Their nature and quality result from comparisons between the different (often conflicting) opinions of present-day and past scholars, as also from loanwords in Greek (and from Greek), including those from central- and eastern-Asian languages.

Here, a transliteration is added. Some numbered notes follow, with explanations and some useful examples, although these phonopses are quite concise.

| | | | | | | |
|---|---|---|---|---|---|---|
| α | *a* | [ɐ] /ɐ/ | | ν | *n* | [n] /n/ |
| | *a/ā* | [a(a)]¹ /aa/ | | ξ | *ks* | [ks] /k/+/s/ |
| ε | *e* | [e] /e/ | | π | *p* | [p] /p/ |
| η | *ē* | [ɛ(ɛ)]¹ /ɛɛ/ | | ρ | *r* | [ɾ] /ɾ/ |
| ι | *i* | [ɪ] /ɪ/ | | ῥ | *rh* | [ɾ̥] /ɾ̥/ |
| | *i/ī* | [i(i)]¹ /ii/ | | ῤῥ | *rrh* | [ɾ̥ɾ̥] /ɾ̥ɾ̥/ |
| ο | *o* | [o] /o/ | | σ,-ς | *s* | [s] /s/ (word-finally, ς) |
| ω | *ō* | [ɔ(ɔ)]¹ /ɔɔ/ | | | *s* | [z] /s/ + β, γ, δ; |
| υ | *y* | [ʉ] /ʉ/ (←[ʊ])² | | | *s* | [z] /s/ + λ, μ, ν, ρ |
| | *y/ȳ* | [ʉ(ʉ)] /ʉʉ/ (←[uu])² | | τ | *t* | [t] /t/ |
| β | *b* | [b] /b/ | | φ | *ph* | [ph] /p/+/h/ |
| γ | *g* | [g] /g/; *g* [ŋ] /n/ + μ, ν | | χ | *kh* | [kh] /k/+/h/ |
| | | (but γν-, *gn-* [gn] /gn/); | | ψ | *ps* | [ps] /p/+/s/ |
| | *n* | [ŋ] /n/ + γ, ϰ, ξ, χ; | | | | |
| δ | *d* | [d] /d/ | | ‘ | *h* | [h, V#ɦV] /h/ |
| ζ | *z* | [z, VzzV] /z, zz/ (←[dz]←[zd])² | | ’ | | [∅] / / 'zero' |
| ϑ | *th* | [th] /t/ + /h/ | | ´ | ´ | [ˈ] /ˈ/ (mid level tone) |
| ϰ | *k* | [k] /k/ | | ` | ` | [˳] /˳/ (low level tone) |
| λ | *l* | [l] /l/ | | ˆ | ˆ | [˵] /˵/ (mid-to-low falling tone) |
| μ | *m* | [m] /m/ | | | | [.] /./ (low level weak tone) |

Vι *Vi*  [Vɪ] /Vɪ/: αι, *ai* [ɐɪ] /aɪ/; ει, *ei* [eɪ] /eɪ/; οι, *oi* [oɪ] /oɪ/; υι, *yi* [ʉɪ] /ʉɪ/

Vυ *Vu*  [Vʊ] /Vʊ/: αυ, *au* [ɐʊ] /ɐʊ/; ευ, *eu* [eʊ] /eʊ/; ᾱυ, *āu* [aaʊ] /aaʊ/; ηυ, *ēu* [ɛɛʊ] /ɛɛʊ/; ωυ, *ōu* [ɔɔʊ] /ɔɔʊ/; but ου, *ou* [ʊu] /ʊu/, which is the natural phonic way of showing what different scholars describe as corresponding to /oo, ου, ou, uu/, by optimizing their articulatory space in the vocogram²

V̩ *V̩i̩* [VVɪ][3]: for our kind of pronunciation, we show these long diphthongs as they really were: η-ηι, *ēi̩* [ε(ε)ɪ] /εεɪ/; ᾳ-αι, *āi̩* [a(a)ɪ] /aaɪ/; ῳ-ωι, *ōi̩* [ɔ(ɔ)ɪ] /ɔɔɪ/ VɪV *V̩iV* [VɪjV] /Vɪ(#)V/, VυV *V̩uV* [VυwV] /Vυ(#)V/ (within or between words).

[1] Unstressed 'long' vowels become short monophthongs, keeping their normal timbres, [i, ε, a, ɔ, ʉ], which were different from true short vowels, [ɪ, e, ɐ, o, ʊ].

[2] At earlier times these vowel timbres and the articulation of ζ were as indicated after '←'. Between vowels, ζ was geminated, [zz] /zz/. The previous intermediate stage, [dz] /dz/ (not a stopstrictive, [ʤ]), from a former [zd] /zd/, originated by metathesis and made up a consistent series with [ps] /ps/ and [ks] /ks/, in spite of its being 'intrinsically' voiced (structurally, a voiceless sequence, /ts/, would have been more plausible, much like ψ and ξ, but no reliable traces or records of it have been found).

[3] On the other hand we get: Ἇι (for ᾆ-ᾆι; different from Αῖ, αῖ)… In fact, η-ηι, ᾳ-αι, ῳ-ωι, were still 'long' diphthongs, as shown: [a(a)ɪ, ε(ε)ɪ, ɔ(ɔ)ɪ]; but, if followed by a vowel, '◌̦' stood for 'ι' [ⱼ, 'j], as in: ῥᾴων *hráii̩ōn* ['ʀaaⱼɔn], κλῄω *klēi̩ō* ['klεεⱼɔ], πατρῴος *patrōi̩os* [.pɐˌtrɔɔⱼos], τῷ ὄντι *tōi̩ ónti* [.tɔ'jonˌtɪ]. For [ⱼ, ɟ, ɰ], see § 10.16.10. Also see § 10.15 for /aaɪ, εεɪ, ɔɔɪ/ and their succeeding developments.

16.2. Besides, we had Vï *V̩ï* [Vɪ] and Vü *V̩ü* [Vʉ] with independent ι, υ (also stressable, ἀΐσσω *aíssō* [ɐ'ɪsˌsɔ]): ἱρήϊον *hirēion* [ˌhɪ'rεεɪjon], ἀϋτμή *aytmē* [ˌɐʉt'mεε].

In addition, intervocalic /i, u/ (in /Vi, Vu/ + /V/ sequences, *cf* the second vocogram) were: [ɪj, ʊw], *ie* VɪV *V̩iV* [VɪjV]: [ɐɪjV, eɪjV, oɪjV, ʉɪjV]: πλεῖος *plêios* [ˌpleɪˌjos]. Also:

*fig* 16.1. Ancient Greek vowels and diphthongs.
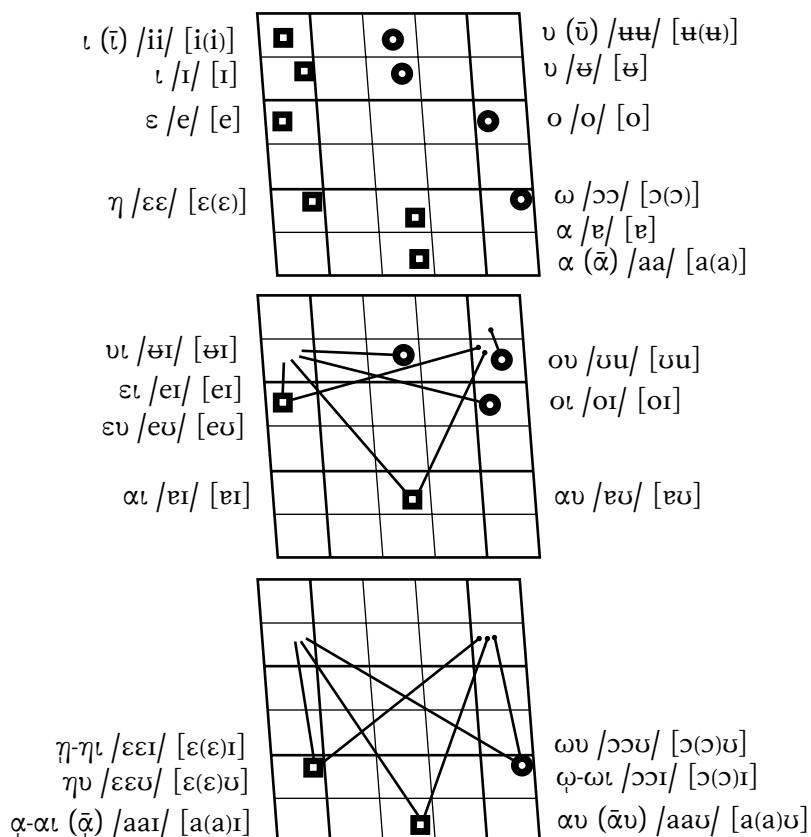
VυV *VuV* [VʊwV]: [ɐʊwV, eʊwV, εεʊwV, ɔɔʊwV]; with ουV *ouV* [ʊuwV]: βουλεύω *bouléuō* [ˌbʊuˈleʊˌwɔ].

In *diphthongs* the accent mark –much like the possible *breathing* (either 'rough', ʽ *h* [h, V⁺ɦV] /h/, or 'smooth', ʼ [Ø] //)– is marked on the second element, even though it goes without saying that phono-tonetically (as also in its transliterated form) it is on the first one: αἷμα *hâima* [ˌhɐɪˌmɐ]. As we know, usual spelling does not distinguish between short ([ɐ, ɪ, ʉ]) and long ([aa, ii, ʉʉ]): α, ι, υ.

No doubt, in quick speech, the unstressed vowels and diphthongs might certainly have the realizations shown in the following vocograms.

*fig* 16.2. Ancient Greek unstressed vowels and diphthongs, in quick speech.
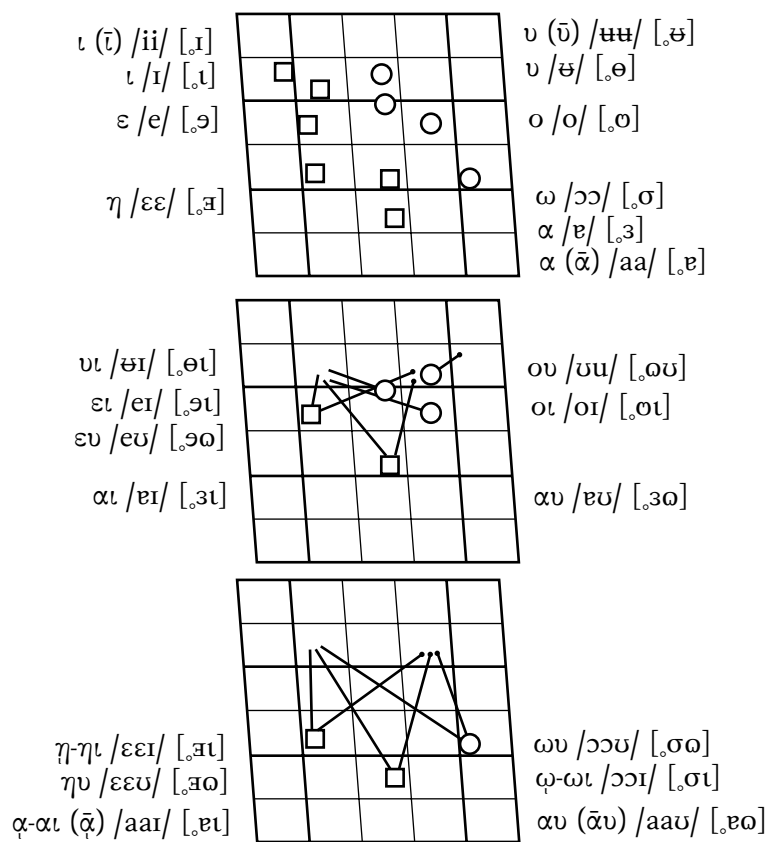


*fig* 16.3. Ancient Greek consonants.



To end with, ϑ, φ, χ are voiceless 'aspirated' stops; when in sequence, both can be 'aspirated', mostly in careful speech: δίφθογγος *díphthongos* [ˈdɪp(h)ˌthoŋ.gos] (collo-

quially, also [φ, θ, x] are possible ['dɪφˌthoŋˌgos]). Notice also that, except for γγ *ng* [ŋg], doubled consonants are truly geminated (as ζ also was [zz], between vowels): βάλ-λω *bállō* ['bɐlˌlɔ], ἵππος *híppos* ['hɪpˌpos], περίζωμα *perízōma* [ˌpeˈrɪzˌzɔˌmɐ]. The following table shows the consonantal phonemes and taxophones of ancient Greek.

16.3. The tonetic illustrations which follow explain the nature of the Greek *accent*. It combined stress (*ie* intensity) and pitch (*ie* tonality). Words with a circumflex written accent have a falling movement from a mid pitch to a low one, as shown. Those with an acute written accent have a mid pitch, very slightly ascending. The words with a grave written accent have a low pitch. See § 16.4 & § 16.18 for examples (& § 16.19 for sayings).

Since this highly debated matter is still partially unsettled, and not to complicate things, it is probably better to consider the three stressed tonemic patterns, as shown in the figure.

All these tonetic movements were superimposed on the dotted lines shown in the (larger) tonograms, giving the unmarked four protunes, with theoretically all unaccented syllables and two stressed ones. Of course, they modifie those overall structures, by partially raising the pitch on their last syllable.

The first four tonograms show this change with the circumflex accent, [ˌ] /ˌ/ ˆ, while the middle four ones show it with the acute accent, ['] /'/ ′; the last four show it with the grave accent, [_] /_/ `.

The four tonograms at the botton of the tonetic illustration show the realizations of the four tunes, with their clear movements, which further modify the tonetic structures just seen.

*fig* 16.4. Ancient Greek tonems with protunes and tunes.
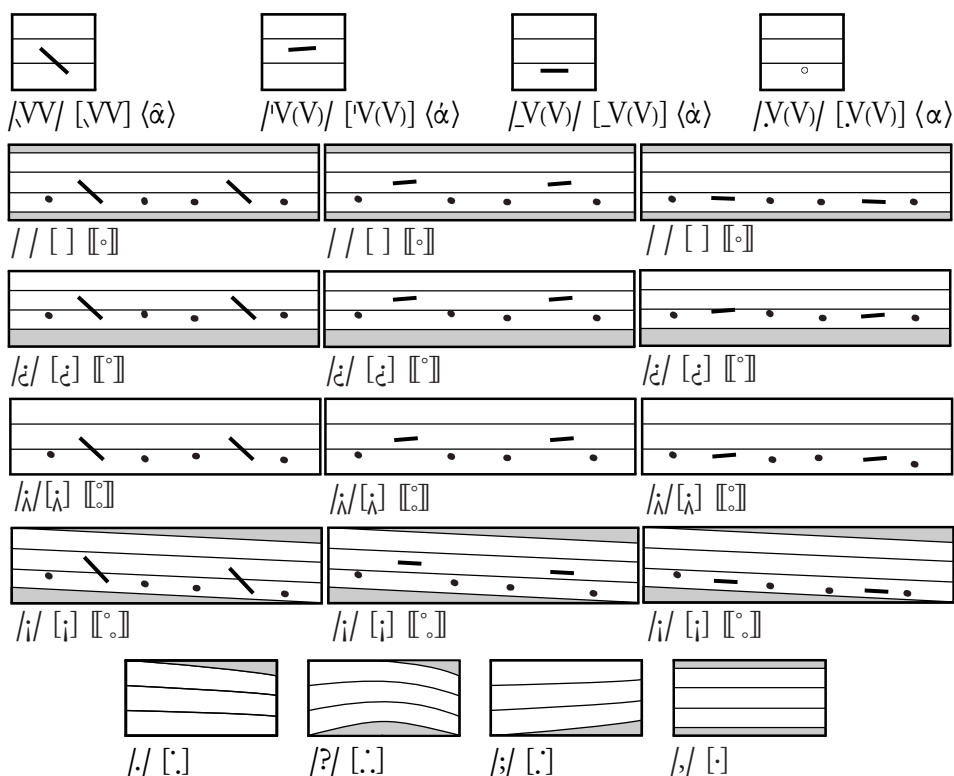
16.4. Here is a transcription of the Aesopian fable, which is generally used as an example for all languages dealt with phonetically. Let us carefully consider the nature of our narrow diphthongs (in the vocograms): ει [eɪ], ου [ʊu], η-ηι [εeɪ], ᾳ-αι [aaɪ], ῳ-ωι [ɔɔɪ] (rather than [ee, uu] and [εε, aa, ɔɔ], or [eː, uː] and [εː, aː, ɔː]).

They are similar to those of many modern languages, like English, Dutch, Swedish, Turkish, Hindi, still described too often as if they were really 'long vowels', [Vː], instead of real narrow diphthongs, [VV]. We simply show that English '[iː, uː]' are actually /ii, uu/ [ɪi] and [ʊu, ʉu], respectively. Nobody can deny this obvious fact.

Βορέας καὶ Ἥλιος περὶ δυνάμεως ἤριζον· ἔδοξε δὲ αὐτοῖς ἐκείνῳ τὴν νίκην ἀ-πονεῖμαι, ὃς ἂν αὐτῶν ἄνθρωπον ὁδοιπόρον ἐκδύσῃ. Καὶ ὁ Βορέας ἀρξάμενος σφο-δρὸς ἦν· τοῦ δὲ ἀνθρώπου ἀντεχομένου τῆς ἐσθῆτος μᾶλλον ἐπέκειτο.

Ὁ δὲ ὑπὸ τοῦ ψύχους καταπονούμενος ἔτι μᾶλλον καὶ περιττοτέραν ἐσθῆτα προ-σελάμβανεν, ἕως ἀποκαμὼν ὁ Βορέας τῷ Ἡλίῳ μεταπαρέδωκε. Κἀκεῖνος τὸ μὲν πρῶτον μετρίως προσέλαμψε· τοῦ δὲ ἀνθρώπου τὰ περισσὰ τῶν ἱματίων ἀποτιθε-μένου σφοδρότερον τὸ καῦμα ἐπέτεινε, μέχρις οὗ πρὸς τὴν ἀλέαν ἀντέχειν μὴ δυ-νάμενος ἀποδυσάμενος ποταμοῦ παρρέοντος ἐπὶ λουτρὸν ἀπῄει.

Ἆρ' ἔαδέ σοι ὁ μῦθος; Ἢ βουλόμεθα αὐτὸν πάλιν λέγειν;

[ˌboˈreas ˌkɐrˈɦɛɛˌlios ˌpeˌɾiˌdʉˈnɐˌmeɔ ˈsɛɛˌɾizˌzon˺ ˈeˌdokˌse ˌdeɐʊˌtoiseˈkeiˌnɔi ˌtenˈniiˌkɛ ˌnɐˌpoˌneiˌmɐi˙ ɦoˌsɐˌnɐʊˌtɔ ˈnɐnˌthrɔˌpon ˌhoˌdoɾˈpoˌɾo nekˈdʉʉˌsɛi˺ ˌkɐiˌɦoˌboˈrea ˌsɐrkˈsɐˌmeˌnos ˌphoˌdroˌsɛn˙ ˌtʊʊˌdeɐnˈthrɔɔˌpuuɐn ˌteˌkhoˈmeˌnʊu ˌtɛˌsesˌtheɛˌtoz ˌmaaˌlo ˌneˈpeˌkeiˌto˺]

[ˌhoˌdeˌɦʉˌpoˌtʊupˈsʉʉˌkhuus ˌkɐˌtɐˌpoˈnʊuˌmeˌnos˺ ˌeˌtiˌmaaˌloŋ ˌkɐiˌpeˌɾitˌtoˈteˌɾɐ ˌnesˌtheɛˌtɐ ˌproˌseˈlɐmˌbɐˌnen˺ ˈheɔˌsɐ ˌpoˌkɐˌmɔɔn ˌhoˌboˈreas ˌtɔiˌɦɛˈlioi ˌmeˌtɐˌpɐˈreˌdɔˌke˺ kaˌkeiˌnos ˌtoˌmemˌprɔɔˌtom ˌmeˈtrios ˌproˈseˌlɐmpˌse˺ ˌtʊuˌdeɐnˈthrɔɔˌpʊu ˌtɐˌpeˌɾisˌsɐ ˌton ˌhiˌmɐˈtiɔ ˌnɐˌpoˌtiˌtheˈmeˌnʊu˺ sphoˈdroˌteˌɾon ˌtoˌkɐʊˌmɐ ˈpeˌteiˌne˙ ˈmeˌkhris ˌhʊuˌpros ˌtɐˌnɐˈlea ˌnɐnˈteˌkheim ˌmɐˌdʉˈnɐˌmeˌnos˺ ˌeˌpoˌdʉˈsɐˌmeˌnos ˌpoˌtɐˌmʊu ˌpɐˌrɐrˈreonˌto ˌseˌpiˌlʊuˌtro ˌnɐˈpɛɛˌjei˺]

[¿ˌarˌɦɐʊˈdeˌsoi ˌɦoˌmʉʉˌthos˺] ¿ˌɛˌbʊuˈloˌmeˌthɐ˙ ˌɐʊˌtomˈpɐˌlin ˈleˌgein˺].

*Some considerations about spelling, pitch, music, verse, other literary dialects, and numerals (simply from a 'modern' non-traditional and non-specialistic point of view)*

16.5. Since we live and do phonetics in the third millennium, what will follow is thought to be necessary, in order to solve and resolve scientifically the problem of spelling and pronunciation.

Of course, some classicists, or classical philologists, 'classically' tied to centuries-old traditions (if not even thousand-year-old ones), might surely turn up their learned noses at our beliefs. Too often, 'specialists' keep on trying to describe traditionally 'inhereted things', without resorting to newer and –allow us to say– more scientific methods, as Natural Phonotonetics. Unfortunately, traditions are hard to die, or even be simply modified following more recent and scientific criteria.

But it must be completely clear that we refer to the, now, highly consolidated spelling usage, *after* the classical period, even if –obviouysly– related to that very epoch. Nobody sane of mind would assume that Plato or Aristotle actually used

such way of writing. Of course, (ancient) tablets were a bit different from (graphic) tablets, but we must not confuse them. It is useless to remain bound to clearly outdated past 'things'.

16.6. As we have already said in § 10.4, too often even 'modern phoneticians' describe obviously unquestionale diphthongs as if the were 'long vowels'. Thus, it is not at all hard to imagine how phonetic realities could be treated in ancient times (and still believed to be like that, nowdays)!

Unfortunately, the Middle Ages are famous both for their serious studies and absurd rigmaroles, with incredible officialdom and many useless productions.

Sadly enough, in Greece nothing happened similar to what *Pāṇini* did, in ancient India, in earlier times, for rather scientific phonetics. The Greeks did know some kind of an ancient 'letter', derived by cutting H, which was quite suitable for an adequate representation of their phoneme /h/: Ⱶ, ⱶ. In fact, ⱶ had also been used to represent drachma, as a silver coin. In Argolis, ⱶ (or its variant ⱶ) was used for λ, too. In the late Hellenistic period and later on, when diacritics were systematically introduced in writing, this sign became the rough breathing, ʽ, while the other part, ⱶ, ⱶ, became the smooth breathing, ʼ.

But it seems that some post-classical scholiasts and grammarians were not sufficiently smart as to follow the example found even in certain Greek colonies, where that 'letter' was conveniently used as a full-fledged consonantal grapheme. Instead, they 'preferred' not to indicate their phoneme, which –it is true– was rather marginal, almost a second-hand consonant. On the othe hand, communications was certainly not as easy as it is today: they did not have ίντερνετ (nor ἴντερνετ).

When pre-vocalic /h/ eventually disappeared from Koiné Greek, and its spelling was fixed by people who no longer had it in their own spoken language, nor had a clear idea of what it actually could be, it was again considered as something less important than a real consonant, either phonically or graphically. Even when /h/ was really present, it must have been considered as something belonging more to the realization of vowels in certain initial positions, rather than actually being a real consonantal segment.

16.7. As a matter of fact, in verse, neither ʽ /h/, nor the /h/ element in φ, ϑ, χ, were perceived as independent phonemic segments, while, on the contary, they certainly were: [h], [ph; th; kh, ꞣh]! So, absurdly, initial /h/ was not considered to be a true consonant (both phonically and graphically), but some kind of unfortunate feature belonging to the vowels, calling it *rough breathing*.

As in Italian, what is not clearly shown graphically, like the real (phonemic) timbres of the vowels written *e* and *o*, /e, ɛ; o, ɔ/, is currently undervalued, and even not perceived, not only by common people, but also by 'learned' people, too, like too many university teachers.

16.8. Thus, instead of using a convenient and economical consonant (like Ⱶ, ⱶ, or any other, possibly better), a highly inconvenient diacritic was put over lower-

-case vowels: ῾ (for all seven vowels). Of course, it was also to be combined with the three kinds of accent, giving ῞, ῝, ῟ – again, for all vowels, including the three ones with the *iota subscript*: ͅ.

As already hinted at above, although φ, ϑ, χ were certainly [ph, th, kh], however, in verse, they were degraded to something like simple [p, t, k], and written with simple letters, instead of: πℲ, τℲ, χℲ (more scientifically, indeed).

And what is more, as if not enough damage had already been done, they also 'invented' the extremely useless *smooth breathing*, meant to indicate the absence of the *rough* one. But, in case, to indicate a phonic 'zero', [∅] (or simply [], certainly not [ʔ], which might have required a true consonantal phonic –and perhaps also graphic– segment), they should have used Ⱶ, ⱶ, which they already had in previous times.

So the number of combinations of vowels and diacritics was doubled, quite unnecessarily. Luckily, upper-case vowels were not 'sentenced' the same way. In any case, there are 112 useless combinations of vowels and inconvenient diacritics! Of course, it is true that the adoption and insertion of the diacritics, over (or under) letters, was somehow imposed by the unlucky *scriptio continua* (with no spaces between words) and in capital letters.

Obviously their introduction was certainly not a perfidious invention. And even the smooth breathing had a justification; in fact, it helped in identifying words beginning with a vowel, as the rough breathing also did. But such 'clever expedients' were due to the technical limits of those times.

16.9. However, the unfortunate and unhappy story of the Greek spelling is not ended. In fact, although phonic diphthongs are quite clearly stressed on their first vowel element, like [ˈai] (*ie ái*), they are 'ingeneously' written like *aí*, as if they were actually [aˈi]!

In modern Greek, although now only the acute accent is written, the current spelling still uses such an inconvenient way of showing the stress. Let us consider a simple example, in modern Greek, where a word like [ˌkaθaˈɾɛˑvuʂa] is still amazingly written καθαρεύουσα (with an accent over what is now a consonant).

16.10. The medieval bureaucratic obsession also brought scholars to put a grave accent on any unaccented syllable, thus, producing full sequences of such grave accents. Later on, however, the grave accent was only put on the final syllable in given known cases.

Of course, in accurate phonotonetic transcriptions, any unstressed syllable must be indicated by means of a low dot, because they are uttered on a low pitch. This tonetic structure is somehow similar to that of Japanese, where (in addition to protune and tune modifications, as in Greek, too) two essential pitches are used: *low* and 'non-low', which is *mid*, not 'high' as it is still called and described.

So, a tone mark like [ˉ] is certainly excessively too high, while [ˈ] (*ie* [[-]], not to be confused with '-', *ie* a normal hyphen) is the one to be used.

When the Greek acute accent is described as the movement from a low pitch to a 'high' one, it has to be interpreted as a movement from low to *mid*, but not

on the same syllable, even if long, so certainly neither [/] nor [ˌ].

Instead, it means that from a low-pitched unstressed syllable [ˌ] the voice rises to the mid-pitched stressed syllable [ˈ] (*ie* 〖-〗, again) for the acute accent, [.ˈ] (*ie* 〖.-〗). On the other hand, for the circumflex accent the movement is from the mid pitch falling to the low one, within the same syllable, [ˎ].

Arguably, it would be extremely ridiculous to pass to a true high pitch even in Japanese, which has very similar tone patterns. So, even in Greek, the real pattern must be within the unmarked low pitch band to the marked mid one (as shown in our tonograms), either steady, [ˈ] (*ie* 〖-〗), or falling [ˎ].

16.11. As a matter of fact, those 'experts' who made Greek recordings using high pitches, believing to be actually reproducing what it was, in reality, made fools of themselves.

It is sufficient to quickly listen to some of the cartoon-like recordings made by Stephen G. Daitz, who passed for a renowned celebrated model to be followed.

In Greek, as in Japanese, the high pitch band is exclusively used for *intonation*, which is superimposed to pitch accents, for the interrogative and suspensive tunes, or for some paraphonic reasons.

Arguably, as Greek verse was generally accompanied by *music*, certainly with wider tonal movements than in real spoken language (otherwise it would be almost useless), we may consider 'normal' to deform and distort utterances in order to follow the musical pattern.

It is the same even in modern contemporary songs, with (even considerable) segmental lengthenings, to say nothing about opera, where some phonemes may be completely ignored, as the distinction between Italian /e, ɛ/ and /o, ɔ/.

But, to insist in believing that real ancient Greek had to be practically 'sung' is something which nobody can actually trust.

16.12. Passing to some requirements (very queer, indeed) that *verse* demand, in order to 'satisfy' metrical patterns (although completely unfamiliar in comparison with actual true language), let us consider, now, some of the forced deviations from normality.

Of course, they were accurately classified and named, otherwise –certainly– they could not be imposed, as if they were actually necessary.

So, when true language did not match with *metrical structures* (real superstructures, indeed), *dieresis* was introduced, as when normal παίς [ˈpʁis], had to be deformed into πάϊς (which could be passed off as a legitimate disyllabic word, something like [ˈpʁ#ɪs], by doing violence to actual language).

On the contrary, when there were too many 'syllables', while just one could be accepted, *synizesis* had to be invented, as when μὴ οὐ [ˈmɛɛʊu], had to be made to 'seem' to be monosyllabic (as if it was not already such, in spite of its length).

Let us end with *syneresis*, when words like θεόι [ˌtheˈoɪ] or πόλεως [ˈpo.leɔs] had to be passed off as monosyllabic or bisyllabic, respectively, having to introduce new consonantal semiapproximant taxophones, as in '[ˈthjoɪ, ˈpo.ljɔs]' (and [ɟ, w] for 'consonantalized' [a, o], α, o: [ɟɪ, wɪ]).

16.13. Of course, in Natural Phonetics, πόλεως ['poˌleɔs] is already bisyllabic. In the case of θεοί [ˌtheˈoɪ] (as a monosyllabified word, seen above), the -οι and -αι endings were sometimes forced to 'become short' (or, rather, to be considered as 'short'). For instance, the -αι of the imperative and infinitive forms, τίμησαι and τιμῆσαι, had to be considered as ending with something 'monomoraic' like [ᶨɪ], just seen, *ie* ['tiiˌmɛ-ˌsᶨɪ] and [ˌtiˌmɛɛˌsᶨɪ]; while the optative form, τιμήσαι, 'remained normal', *ie* with a 'bimoraic' ending, [ˌtiˈmɛɛˌsɐɪ]. Similarly, for ἄνθρωποι, *ie* ['ɐnˌthrɔˌpʊɪ], as against ἀν-θρώπου, *ie* [ˌɐnˈthrɔɔˌpʊu].

Frankly, it must be said that, if those endings were really different, in the long history of grammatical Greek treatises, a way to show that fact would certainly have been devised (however crazy, as so many others).

*fig* 16.5. Ancient Greek semiapproximants.
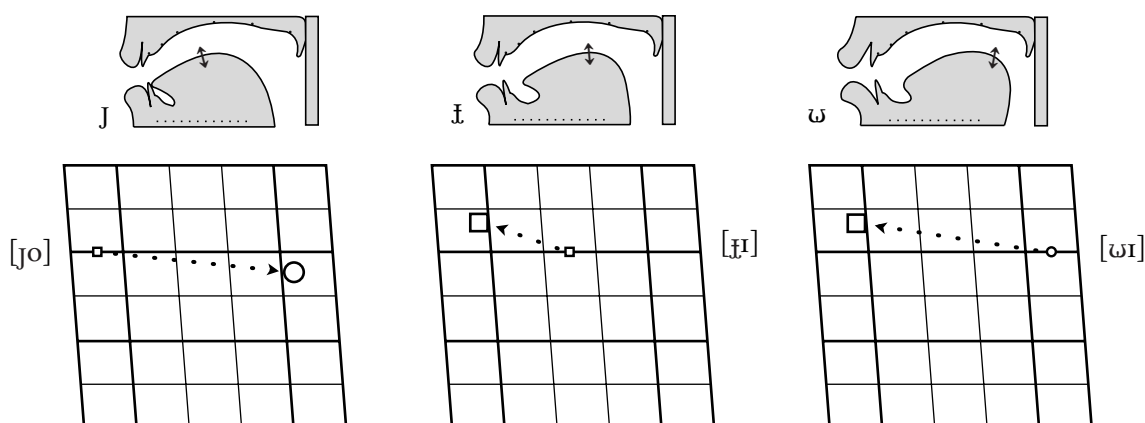


16.14. However, it is true that, in singing verse with music, as a form of art in the ancient world, long vowels were certainly pronounced as bi-phonic diphthongs even when unstressed, [ii, ɛɛ, aa, ɔɔ, ʉʉ], not as [i, ɛ, a, ɔ, ʉ] (as in real spoken language, where they still remained different from their short counterparts, [ɪ, e, ɐ, o, ʉ], thanks to their timbres).

We must add that a language like ancient Greek certainly *syllabified* its words in a more natural way than the verse 'rules' would make us believe, including in word formation.

Thus: πόνος ['poˌnos], τιμάω [ˌtiˈmɐɔ], ἀπ᾽ ἐμοῦ [ˌɐpeˌmʊu], ἀγγέλλω [ˌɐŋˈgelˌlɔ], πένθος ['penˌthos], πότμος ['potˌmos], ἀκτίς [ˌɐkˈtɪs], πέφασμαι ['peˌphɐzˌmɐɪ], βλάπτω ['blɐpˌtɔ], δάκνω ['dɐkˌnɔ], μιμνέσκω [ˌmɪmˈnesˌkɔ], ἄρκτος ['ɐrkˌtos], Βάκχος ['bɐkˌkhos], Σαπφώ [ˌsɐpˈphɔɔ], συνέρχομαι [ˌsʉˈnɐrˌkhɔˌmɐɪ], ἐξετάζω [ˌekseˈtɐzˌzɔ], ἐπράχθη [ˌeˈprɐkˌthɛ, ˌeˈprɐxˌthɛ], ἐθρέψασθε [ˌethˈrepˌsɐsˌthe], γέγραφθε ['geˌgrɐp-ˌthe, 'geˌgrɐɸˌthe], τεθνέξω [ˌtethˈnekˌsɔ], ἐσθλός [ˌesˈthlos].

16.15. Interestingly, there is a fascinating hypothesis (more likely than not, indeed), which leads us to consider the Hellenistic-Byzantine introduction of *iota subscript* (ῃ, ᾳ, ῳ) as a kind of *diagraphemic* way to hint at a possible *sociophonic diaphonemic* reality dealing with the change from /ɛɛɪ, aaɪ, ɔɔɪ/ [ɛɛɪ, aaɪ, ɔɔɪ] ηι, αι, ωι (sec-

ond vocogram) to their succeeding actual reality, during the Classical period: /εε, aa, ɔɔ/ [εε, aa, ɔɔ] (sixth vocogram), which coincide with the previous long phonemes (already seen in a vocogram at § 124.1).

In fact, different people in different periods (within the 5-4ᵗʰ c.) might certainly have anticipated that change, through stages like those illustrated here.

The first vocogram helps to show the difference between the existing 'short' diphthongs /ei, ɐi, oi/ [ei, ɐi, oi] ει, αι, οι and the intermediate stage of the 'long' (shortened) diphthongs, /εi, ai, ɔi/ [εi, ai, ɔi] (third vocogram), with clearly *different* first elements.

The third vocogram gives the real 'long' diphthongs, /εεi, aai, ɔɔi/ [εεi, aai, ɔɔi]. Let us pay particular attention to the symbols around the figures, which should be the only elements that differentiate the second and third vocograms. However, contrary to our usual practice, in this case we adopt a newer way of also showing greater length, by means of larger markers, as can be seen, so that the second and third vocograms appear to be different as far as segmental length is concerned.

Let us notice that the fourth vocogram shows an 'intermediate' situation possibly used by some different speakers (or by the same ones, with oscillating usages).

The fifth vocogram shows the very likely sociophonic stage of narrow (shortened 'long') diphthongs, [εe, aɟ, ɔə], with their second elements pointing to /ɪ/ [ɪ]. Instead, the sixth vocogram shows the three monophthongized 'long' vowels.

*fig* 16.6. Ancient Greek: more about diphthongs.
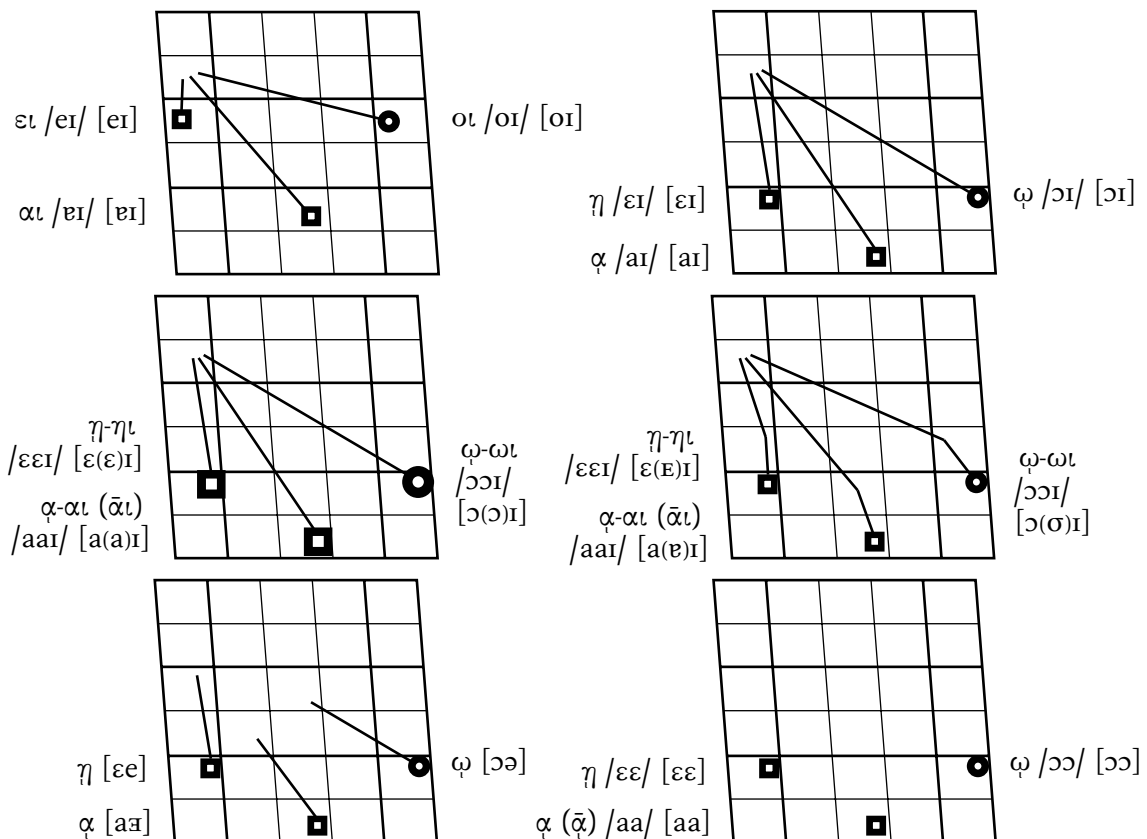
16.16. The *Greek literary dialects* had always been a kind of artificial languages. In fact, the 'dialects' used by all authors did not depend on their ethnic origin, but on the literary genres they chose.

Therefore, the *Attic dialect* was used for *prose, philosophy, oratory, historiography,* and *theatrical dialog*. The *Ionic dialect* in *elegy, epigram,* and (together with the *Aeolic dialect*) in *monodic lyric*. The *Doric dialect* in *choral lyric* and lyrical parts of *tragedy* and *comedy*. Here are some of the most peculiar phonic differences between these literary dialects.

While *Attic* changed former /uu, ʊ/ into /ʉʉ, ʉ/ (where /uu, ʊ/ derived both from /oʊ/ and contracted or compensatory lengthened /oo/, but were still different from /ɔɔ/), other dialects kept /uu, ʊ/. In addition, Attic maintained /h/, while, for former /VssV/ it had three possibilities: /VssV, VsV, VttV/.

Generally, *Ionic* changed /uu, ʊ/ into /ʉʉ, ʉ/, /o/ into /oʊ/, but /eɪ/ into /e/ (although apparently irregular); it often lost /h/, while, for former /VssV/ it had two possibilies: /VssV, VttV/, and geminated /m, n, l, p, t, s/ for metrical reasons.

*Aeolic* changed /eɪ/ into /ɛɛ/ (sometimes into /ii/); contracted /ee/ and /oo/ became /ɛɛ, ɔɔ/, while original /ɛɛ/ was generally replaced by /aa/ and /oʊ/ by /uu/. It completely lost /h/, while keeping former word-internal [zd].

*Doric* changed original /ei, ou/ into /ee, oo/; it often had /aa/ instead of /ɛɛ/, and sometimes [ɟɐ, ɟo] instead of /ea, eo/ for metrical reasons. Besides, it kept [zd, ss].

16.17. Now, a short note about the way of representing *numerals* in ancient Greece is thought to be necessary. Philosophy, astronomy, and all possible arts (except cinema and music recording, of course) were certainly treated deeply, even mathematics and geometry. Thus we find numbers like: α', β', γ', δ', ε', ϛ', ζ', η', ϑ', ι' (ie 1-10), ια', ιβ', ιγ', ιδ', ιε', ιϛ', ιζ', ιη', ιϑ' (ie 11-19), κ', λ', μ', ν', ξ', ο', π', ϟ' (ie tens from 20 to 90), ρ', σ', τ', υ', φ', χ', ψ', ω', ϡ (ie hundreds from 100 to 900), ͵α, ͵β, ͵γ (ie thousands from 1000 to 3000), ͵ι, ͵κ (ie tens of thousands from 10.000 to 20.000), ͵ρ (100.000). Let us see some examples: ιβ' (ie 12), ϡξη' (ie 968), ͵γχπγ' (ie 3683).

Certainly, 'creations' like ○, ˥ (ɹ), ϩ (2), ϶, φ (ϥ), ϛ (5), Ϭ, ϳ (ʒ), ծ (8), ϙ (ie 0, 1, 2, 3, 4, 5, 6, 7, 8, 9) would be much better, and with 'normal' combinations of these simple *ten* elements, without ignoring the fundamental *zero*, in fact, only nothing is flawless, instead of introducing cerebral pseudo-numerical values, detrimentally based on less motivated *letters*. Before Archimedes, scientific precision seemed to be less important than philosophy or the fine arts. In fact, πολύπους (*poly*pus /ˈpɒləpəs/, 'many' & πούς 'foot') is certainly not as precise as ὀκτώπους (*octo*pus /ˈɒkʈəpəs/, 'eight').

So, let us state frankly that the way in which numbers were written is decidedly far from ideal. It is also undeniably true that, in the Roman world, numbers were shown in a possible even worse way, as we all know rather well. For instance, xʟ, or XL, means '40', certainly not 'extra-large'!

**Intonation examples**

16.18. Here are some sentences illustrating the use of intonation in classical Greek, following our riconstruction, shown at § 16.3.

Βουλοίμην ἂν ἑλληνίζειν ἐπίστασθαι.
[ˌbʊuˈlɔɪˌmɛ̝ˌnan ˌhelˌlɛˈnɪzˌzeɪ ˌneˈpɪsˌtɐsˌthɐɪˈ]
(I'd like to speak Greek well)

Ἴσμεν τὶ λέγειν βούλῃ.
[ˈɪzˌmɛ̝n ˌtɪˈleˌɡeɪm ˈbʊuˌlɛɪˈ]
(We know what you mean)

Χάριν σοι ὅτι πλεῖστον ἔχω.
[ˈkhɐˌrɪnˌsɔɪ ˈhoˌtɪ ˌpleɪsˌto ˈneˌkhɔˈ]
(Thank you very much)

Τὶ δοκεῖς περὶ τούτου;
[¿ˌtɪ ˌdoˌkeɪs ˌpeˌrɪˈtʊuˌtʊuˈ]
(What do you think about it?)

Πῶς ἔχεις τήμερον;
[¿ˌpɔˈseˌkheɪs ˈtɛɛˌmeˌronˈ]
(How are you feeling today)

Ποῖ ἴμεν;
[¿ˌpɔɪˈɪˌmenˈ]
(Where are we going?)

Ἆρ’ ἑλληνίζεις;
[¿ˌaar ˌhelˌlɛˈnɪzˌzeɪsˈ]
(Can you speak Greek?)

Ὁ σὸς ἀδελφὸς καταλαμβάνει τοῦτο;
[ˌhoˌsoˌsɐˌdel_phos· ˌkɐˌtɐˌlɐmˈbɐˌneɪˌtʊuˌtoˈ]
(Does your brother understand it?)

Αὐτὸς ἱκνεῖται αὔριον;
[¿ˌɐʊ_tos ˌhɪkˌneɪˌtɐɪ· ˈɐʊˌrɪonˈ]
(Is he coming tomorrow?)

Εἰ μὴ δύνασαι ἐκνεῖσθαι ἐν τῷ ὑστεραίῳ σαββάτῳ, πράγματα σχήσομεν.
[ˌeɪ mɛˈdɐˌnɐˌsɐɪ ˌhekˌneɪsˌthɐɪ· ˌeɲtɔɪ ˌhɐsˌteˈrɐɪˌjɔɪ sˌɐbˈbɐˌtɔɪ] ˈpraaɡˌmɐˌtɐs ˈkhɛɛˌsoˌmenˈ]
(If you can't come on Saturday, we'll be in trouble)

Ὅτε ἐφικόμην τὴν λιμήν, ἡ ναῦς ἀνελελύκει.
[ˈhoˌte(e)ˌphɪˈkoˌmɛ̝n ˌtɛnˌlɪˈmɛɛnˈ] ˌhɛ_nɐʊˌsɐ ˌneˌleˈlɐˌkeɪˈ]
(When I came to the harbor, the ship had gone)

Πορεύσομαι δὲ ἐν ἅρματι, ἢ πεζῇ;
[¿.poˈreʊˌso.mɐɪ .de(e)ˈnɐɾ.mɐˌtɪˑ ¿ˌɛ.pezˈzɛɛˑ]
(Sall we go by coach, or on foot?)

Εἰσί· ἕν, δύο, τρία, τέσσαρα, πέντε.
[ˌeɪˈsɪˑ¦ ˈhen· ˈdʉo· ˈtɾɪɐ· ˈtes.sɐˌɾɐˑ¦ ˈpen.teˑ]
(There are:one, two, three, four, five)

Εἰ μὴ δύνασαι ἐκνεῖσθαι ἐν τῷ ὑστεραίῳ σαββάτῳ, οὐδὲν ἔσται πρᾶγμα.
[ˌeɪˈmɛ.dʉ.nɐ.sɐɪ ˌhekˌneɪs.tʰɐɪˑ ˌen.tɔɪ ˌhʉs.teˈɾɐɪ.jɔɪ s.ɐbˈbɐˌtɔɪ¦ ˌʊu_de ˌnes.tɐɪˈpraag.mɐˑ]
(If you can't come on Saturday, there's no problem)

Πορεύσομαι ἐν ἅρματι, ἢ ἐν νηΐ, ἢ πεζῇ;
[¿.poˈreʊˌso.mɐɪ.je ˈnɐɾ.mɐˌtɪˑ¦ ¿ˌeennɛˈɪˑ¦ ¿ˌɛ.pezˌzɛɛˑ]
(Are we going by coach, by ship, or on foot?)

Τόδε λεξικὸν τῷ ὄντι ὠφέλιμόν ἐστι.
[ˈto.de ˌlek.sɪ_kon ˌtɔˈjon ˌtɪɔˈphe.lɪ.mo.nes.tɪˑ]
(This is a very useful dictionary)

*Τόδε* λεξικὸν τῷ ὄντι ὠφέλιμόν ἐστι.
[ˌʎˈto.de· ˌlek.sɪ_kon ˌtɔˈjon ˌtɪɔˈphe.lɪ.mo.nes.tɪˑ]
(*This* is a very useful dictionary)

Τόδε *λεξικὸν* τῷ ὄντι ὠφέλιμόν ἐστι.
[ˌʎˈto.de ˌlek.sɪ_kon· ˌtɔˈjon ˌtɪɔˈphe.lɪ.mo.nes.tɪˑ]
(This is a very useful *dictionary*)

Τόδε λεξικὸν *τῷ ὄντι* ὠφέλιμόν ἐστι.
[ˈto.de ˌlek.sɪ_kon ˌtɔˈjon.tɪɔ ˈphe.lɪ.mo.nes.tɪˑ]
(This is a *very* useful dictionary)

Τόδε λεξικὸν τῷ ὄντι *ὠφέλιμόν* ἐστι.
[ˈto.de ˌlek.sɪ_kon· ˌtɔˈjon.tɪ ˌʎɔˈphe.lɪ.mo.nes.tɪˑ]
(This is a very *useful* dictionary)

Οὒ δῆτα, εἶπε, οὐκ ἔπραξα τοῦτο.
[ˌʊuˌdɛɛ.tɐˑ ˌˌeɪ.peˌ ˌʊuˈke.prɐk.sɐˌtʊu.toˑ]
(No, he said, I haven't done it)

Ναὶ δή, ὦ φιλότης.
[ˌnɐɪˈdɛɛˑ ˌˌɔ.phɪˈlo.tɛsˑˌ]
(Of course, my dear)

Ναὶ δή, ὦ φιλότης. Αὔριον δέξῃ ἐμὸν δῶρον.
[ˌnɐɪˈdɛɛˑ ˌˌɔ.phɪˈlo.tɛsˑˌ¦ ˈɐʊ.ɾɪon ˈdek.sɐ.je ˌmonˈdɔɔ.ɾonˑ]
(Of course, my dear. Tomorrow you'll have a present)

Ναὶ δή, ὦ φιλότης, αὔριον δέξῃ ἐμὸν δῶρον.
[ˌnɐɪˈdɛɛˑ ˌˌɔ.phɪˈlo.tɛsˑˌ ɐʊ.ɾɪon ˈdek.sɐ.je ˌmonˈdɔɔ.ɾonˑ]
(Of course, my dear, tomorrow you'll have a present)

’Επ’ ἀληθείας, εἶπε, ἀπορίας τινὰς ἔχω.

[ˌe.pɐˌlɛˈθeɪˌjas· ˌɪˌeɪˌpe·˩ ˌɐˌpoˈɾɪas ˌtɪˌnɐˈsekhɔ·]

(As a matter of fact, he said, I'm not at all sure)

Ὦ φιλότης, ἆρ’ οὐ ἀναμιμνήσκῃ, ὅτι ἐβλέψαμεν ἐκεῖνον πίνακα ἐν τῇ παρελθόντι
     ἑβδομάδι ἐβλέψαμεν;

[ˌˌɔˌphɪˈlo.tes·˩ ¿aaˌɾʊɐ ˌnɐˌmɪmˈnɛɛɪsˌkeɪ· ¿.ho.tɪɛˈblep.sɐˌme· ¿neˈkeɪnom ˈpɪ.nɐˌkɐ·
     ˌˌenˌteɪˌpɐˌɾelˈthonˌtɪ ˌɦebˌdoˈmɐˌdɪ·˩ ¿.eˈblep.sɐˌmen·]

(My dear, don't you remember we saw that picture last week?)

Ἵνα τί εἴρηκας «μοι μέλει μηδέν», παρ’ ἐματοῦ αἰτῶ, τοὐναντίου ἀληθεύοντος;

[¿ˈhɪˌnɐ ˌtɪˈeɪˌɾɛˌkɐs· ⌜moɪˈmeˌleɪ ˌmɛˈden·⌝ ˌˌpɐˌɾɛˌmɐˌtʊu ˌeɪˌtɔɔ·˩ ¿ˌtʊuˌnɐnˈtɪ.wɐ ˌlɛˈthe-
     ˌwonˌtos·]

(Why did you say 'I don't mind', I wonder, when the opposite is true?).


**Famous sayings**

16.19. Here is a list of about a hunded famous sayings in classical Greek, al-
though a few do not belong to that period (5-4ᵗʰ c). They are often used when speak-
ing English. They are given in our classical pronunciation, followed by the (mod-
ern) international one (with [j̊]), for a possible 'newer' usage in colloquial language.
     We do not translate (nor explain or annotate) them, since it is so easy to find
them in the Net, in several languages.

Ἀγεωμέτρητος μηδεὶς εἰσίτω [ˌɐ.geɔˈme.tɾɛ.tos· ˌmɛˈdeɪ ˌseɪˈsɪˌtɔ·] ([ˌaj̊eɔˈmɛtritos·
     miˈði siˈsiˌtɔ.])

Ἀετοῦ γῆρας, κορυδοῦ νεότης [ˌɐeˌtʊu ˌgeeˌɾɐs· ˌko.ɾɐˌdʊu ˌneˈo.tes·] ([ɐeˈtu ˈj̊eˌras·
     ˌkoɾiˈðu nɐˈstis.])

Ἀεὶ ὁ θεὸς γεωμετρεῖ [ˌɐˌeɪ· ˌho.the.os· ˌgeɔ.meˌtreɪ·] ([aˈi· σθɛˈɔs· j̊eɔmɛˈtri.])

Ἀεὶ κολοιὸς παρὰ κολοιῷ ἱζάνει [ˌɐˌeɪ· ˌko.loɪ.jos· ˌpɐˌɾɐˌko.loɪˌjɔɔ· ˌhɪzˈzɐ.neɪ·] ([aˈi..
     kɔˌʎɔs· paˌɾakoˈʎɔsi iˈzaˌni.])

Ἀεὶ Λιβύη φέρει τι καινόν [ˌɐˌeɪ· ˌlɪˈbɐe· ˈpheˌɾeɪ ˌtɪˌkeɪˈnon·] ([aˈi.. liˈvii· ˈfɛɾi ˌticɛ-
     ˈnɔn.])

Αἰὲν ἀριστεύειν [ˌɐɪˌjeˌnɐ ˌɾɪsˈteʊˌweɪn·] ([ɛˈɛna ɾisˈtɛˌvin.])

Ἀνάγκα δ’ οὐδὲ θεοὶ μάχονται [ɐˈnɐŋˌkaɪ· ˌdʊuˌde ˌthe.oɪ· ˈmɐˌkhonˌteɪ·] ([aˌnaŋka·
     ðuˈðɛ θɛˈi· ˈmaˌxɔnte.])

Ἀνδρῶν γὰρ ἐπιφανῶν πᾶσα γῆ τάφος [ˌɐnˌdɾɔɔŋ· ˌgɐˌɾe.pɪ.phɐˌnɔɔn· ˌpaaˌsɐ ˌgeε·
     ˈtɐˌphos·] ([anˈðɾɔŋ· ɣaɾɛˌpifaˌnɔn· ˈpasa ˈj̊i.. ˈtaˌfɔs.])

Ἀνερρίφθω κύβος [ˌˌɐˌnerˈɾiiphˌthɔ ˈkɐˌbos·] ([ˌanɛˈɾifθσ ˈcivɔs.])

Ἄνθρωπος μέτρον [ˈɐnˌthɾɔˌpos· ˈme.tron·] ([ˈanθɾσpɔs· ˈmɛˈtɾɔn.])

Ἅπαξ λεγόμενον [ˈhɐˌpɐks· leˈgo.menˌon·] ([ˈapaks· lɛˈɣσmɛnɔn.])

Ἀπὸ μηχανῆς θεός [ˌɐˌpoˌmɛˌkhɐˌnees ˌthe'os·] ([ˌɐpɔmixaˈnis θɛˈσs.])

Ἀπὸ τοῦ ἡλίου μετάστηθι [ˌɐˌpo.tʊuˌɦɛˈlɪʊu· ˌme.tɐsˌteˌthɪ·] ([ˌɐpɔtuiˈliu· mɛˈtastiθi.])

Ἄριστον μὲν ὕδωρ [ˈɐˌɾɪsˌtom ˌmen· ˈhɐˌdɔɾ·] ([ˈaɾistσm ˌmɛn· ˈiˌðσɾ.])

Αὐτὸς ἔφα [ˌɐʊˌtoˈse.phaˈ] ([afˌtσˈsɛˈfa.])

Βασιλεία τῶν οὐρανῶν [ˌbɐˌsɪˈleɪˌja· ˌtɔˌnʊuˌɾɐˌnɔɔnˑ] ([ˌvasiˈlia· tɔˌnuraˈnɔn.])

Βρῶμα θεῶν [ˌbrɔɔˌmɐ ˌthɐˌɔɔnˑ] ([ˈvrɔma θɐˈɔn.])

Γηράσκω δ᾽ αἰεὶ πολλὰ διδασκόμενος [ɡɐˈrɐsˌkɔˑ ˌdɐɪˌjeɪ ˌpolˌlɐ ˌdɪˌdɐsˈkoˌmɐˌnosˑ] ([ɟiˈraskɔ·· ðɐˈi pɔˈla ðiðasˈkɔmɐnɔs.])

Γλαῦκ᾽ Ἀθήναζε [ˌɡlɐʊ ˌkɐˈthɛɛˌnazˌzeˑ] ([ˈɡlaf kaˈθiˈnazɛ.])

Γνῶθι σεαυτόν [ɡˌnɔɔˌthɪ ˌseɐʊˈtonˑ] ([ɣˈnɔθi sɐʊfˈtɔn.])

Γόρδιος δεσμός [ˈɡorˌdɪoz ˌdezˈmosˑ] ([ˈɣɔrðjoz ðɛzˈmɔs.])

Δεῖμος καὶ Φόβος [ˌdeɪˌmos ˌkɐɪˈphoˌbosˑ] ([ˈðimɔs cɐˈfɔvɔs.])

Δέσποτα, μέμνεο τῶν Ἀθηναίων [ˈdesˌpoˌtɐ· ˈmemˌneo ˌtɔˌnɐˌthɐˈnɐɪˌjɔnˑ] ([ˈðɛspɔta· ˈmɛmnɛɔ ˌtɔnaθiˈnɛɔn.])

Διαίρει καὶ βασίλευε [ˌdɪˈɐɪˌreɪˑ ˌkɐɪˌbɐˈsɪˌleʊˌweˑ] ([ˌðjɛˈri· ˌcɛvaˈsiˈlɛvɛ.])

Διπλοῦν ὁρῶσιν οἱ μαθόντες γράμματα [ˌdɪˌpluun ˌhoˈrɔɔˌsin· ˌhoɪˌmɐˈthonˌtez ˈɡrɐmˌmɐˌtɐˑ] ([ðiˈplu nɔˈrɔsin· ˌimaˈθɔntez ˈɣraˈmata.])

Δῶς μοι πᾶ στῶ καὶ τὰν γᾶν κινάσω [ˌdɔɔzˌmoɪ ˌpasˌtɔɔˑ ˌkɐɪˌtaŋˌɡaaŋ ˌkiˈnaaˌsɔˑ] ([ˈðɔzmi ˌpasˌtɔ· ˌcɛtaŋˈɡaŋ ciˈnaˈsɔ.])

Ἐγὼ δὲ ὀφείλω λέγειν τὰ λεγόμενα [ˌeˌɡɔˌdeoˈpheɪˌlɔ ˈleˌɡeɪn· ˌtɐˌleˈɡoˌmeˌnɐˑ] ([ɛˌɣɔðɛsˈfilɔ ˈlɛjin· ˌtalɐˈɣɔˈmena.])

Εἷς οἰωνὸς ἄριστος, ἀμύνεσθαι περὶ πάτρης [ˌheɪˌsoɪˌjɔˌnos· ˈɐˌrɪsˌtosˑ ɐˈmʉʉˌnesˌtheɪˑ ˌpɐˌɾɪˈpɐˌtrɛsˑ] ([ˌisiˈnɔs· ˈaristɔs·· aˈmiˈnɛsθɛ· pɐɾiˈpatris.])

Ἐκ τῶν ὧν οὐκ ἄνευ [ˌekˌtɔnˌhɔɔn· ˌʊuˈkɐˌneʊˑ] ([ˌɛktɔˈnɔn· uˈkaˈnɛf.])

Ἓν οἶδα ὅτι οὐδὲν οἶδα [ˌheˌnoɪˌdɐˑ ˌhoˌtɪuˌden· ˌoɪˌdɐˑ] ([ˌɛˈniˈða·· ɔtiuˈðɛn·· ˈiˈða.])

Ἔνθεν μὲν Σκύλλην ἑτέρωθι δὲ δῖα Χάρυβδις [ˈenˌthem ˌmensˈkʉlˌlen· ˌheˈteˌrɔˌthɪ ˌdeˌdiiɐ ˈkhɐˌrʉbˌdɪsˑ] ([ˈɛnθɛ(m) mɛnsˈcilin· ɛˈtɛrɔθi ðɛˈðia ˈxaˈrivðis.])

Εὕρηκα! [ˌʎˈheʊˌɾɐˌkɐ] ([ˌʎˈɛˈvrikɐ])

Ζῷον δίπουν ἄπτερος [ˌzɔɔˌjon· ˈdiˌpuun· ˈapˌteˌrosˑ] ([ˈzɔɔn· ˌðiˈpun· ˈaptɛrɔs.])

Ἦλθον, εἶδον, ἐνίκησα [ˌeeˌlthonˑ ˌeɪˌdonˑ ˌeˈnɪˌkɐˌsɐˑ] ([ˌilθɔn· ˌiˈðɔn· ɛˈniˈcisa.])

Ἢ τὰν ἢ ἐπὶ τὰς [ˌɐˌtaanˑ ˌeeˌɾɪˌtaasˑ] ([iˌtan· ˌiɛpiˈtas.])

Ἡ φύσις οὐδὲν ποιεῖ ἄλματα [hɐˈphʉˌsis· ˌʊuˌdem ˌpoɪˌjeɪ· ˈɐlˌmɐˌtɐˑ] ([iˈfisis· uˈðɛm piˈiˑ ˈalmata.])

Θάλασσα καὶ πῦρ καὶ γυνὴ κακὰ τρία [ˈthɐˌlesˌsɐ· ˌkɐɪˌpʉʉrˑ ˌkɐɪˌɡʉˈnɛɛn· | ˌʎˌkɐˌkɐ ˈtɪɪɐˑ] ([ˈθaˈlasa· cɛˈpir· cɛjiˈnin·| ˌʎkaˈka ˈtriˈa.])

Θάλαττα, θάλαττα! [ˈthɐˌlɐtˌtɐ· ˌʎˈthɐɐˌlɐtˌtɐˑ] ([ˈθaˈlata·· ˌʎˈθaˈlata.])

Θάνατος οὐδὲν διαφέρει τοῦ ζῆν [ˈthɐˌnɐˌtos· ˌʊuˌdenˌdɪɐˈpheˌɾeɪ· ˌtʊuzˌzeenˑ] ([ˌθaˈnatɔs· uˌðɛnðjaˈfɐˈri· tuˈzin.])

Ἰατρέ, θεράπευσον σεαυτόν [ˌiaˈtrɐ· ˌtheˈɾɐˌpeʊˌson ˌseɐʊˈtonˑ] ([jaˈtrɛ· θɛˈrapɛfˌson sɐʊfˈtɔn.])

Καὶ σὺ τέκνον; [¿ˌkɐɪˌsʉˑ ι¿ˈtekˌnon·ι] ([¿cɛˈsiˑ ι¿ˈtɛknɔn·ι])

Κακὸς ἀνὴρ μακρόβιος [ˌkɐˌko ˌsɐˌneɛr· ˌmɐˈkroˌbios] ([kaˈkɔ saˈnir· maˈkrɔˈvjɔs.])

Κακοῦ κόρακος κακὸν ᾠόν [ˌkɐˌkʊu ˈkoˌɾɐˌkos· ˌkɐˌko nɔɪˈonˑ] ([kaˈku ˌkɔˈrakɔs· kaˈkɔ nɔˈɔn.])

Καλλίστη [ˌkɐlˈlɪsˌteɪ] ([kaˈlisti])

Κρῆτες ἀεὶ ψεῦσται [ˌkrɛɛˌtes· ˌɐˌeɪrˌseʊsˌtɐɪ·] (['kriˈtɛs· aˌipˈsɛfstɛˌ.])

Κτῆμα ἐς ἀεί [kˌtɛɛmɐɛ sɐˈeɪ·] ([kˈtimaɛ saˈiˌ.])

Κύριε ἐλέησον [ˈkʉʉˌrɪe ˈleeˌson·] (['cirjɛ ˈlɛisɒnˌ.])

Λάθε βιώσας [ˈlɐˌthɐ· ˌbɪˈɔɔˌsas·] (['laˈθɛ· ˈvjɒˈsasˌ.])

Μέτρον ἄριστον [ˈmeˌtron· ˈɐˌrɪsˌton·] ([ˌmɛˈtron· ˈaˈristonˌ.])

Μὴ μοῦ τοὺς κύκλους τάραττε [ˌmɛɛˌmʊu ˌtʊusˈkʉˌkluus· ˈtɐˌrɐtˌte·] (['mimu tusˈci-klus· ˈtaˈratɛˌ.])

Μῆλον τῆς Ἔριδος [ˌmɛɛˌlon ˌtɐˈseˌrɪˌdos·] (['milɒn tiˈsɛˈriðɒsˌ.])

Μολὼν λαβέ! [ˌmoˌlɔɔn ˌlɐˈbe·] ([ˌmɒˈlɒn laˈvɛˌ.])

Μυστήριον τῆς πίστεως [ˌmʉsˈtɛɛˌrɪon· ˌtɛsˈprɪsˌtɛɒs·] ([misˈtiˈrjɒn· tisˈpistɛɒsˌ.])

Ναὶ ναί, οὖ οὔ [ˌnɐɪ· ˈnɐɪ·| ˌʊu· ˈʊu·] (['nɛ· ˈnɛˌ.| ˈu· ˈʔuˌ.])

Νενικήκαμεν [ˌneˌnɪˈkɛɛˌkɐˌmen·] ([ˌnɛnɪˈkiˈkamɛnˌ.])

Νίψον ἀνομήματα μὴ μόναν ὄψιν ['nɪpˌso ˌnɐˌnoˈmɛɛˌmɐˌta· ˌmɛˈmoˌnɐ 'nopˌsɪn·] (['nipsɒ ˌnanɒˈmiˈmata·· ˌmiˈmona 'nɒpsin·.])

Ξύλινον τεῖχος [kˈsʉˌlɪˌnon ˌteɪˌkhos·] ([kˈsilinɒn ˈtiˈxɒsˌ.])

Ὁ ἄνθρωπος φύσει πολιτικὸν ζῷον [ˌhoˈɐnˌthrɔˌpos· 'phʉˌseɪ·· ˌpoˌlɪˌtɪˌkon· 'zɔɔˌjon·] ([ɒˌanθrɒpɒs· 'fiˈsi· ˌpolitiˈkɒn· ˌzɒɒnˌ.])

Ὁ σῴζων ἑαυτὸν σωθήτω [ˌhoˈsɔɔɪzˌzon ˌhɐɐʊˌton· ˌsɔˈthɛɛˌtɔ·] ([ɒ'sɒzɒ nɛafˈtɒn· sɒ-ˈθiˈtɒˌ.])

Οἶνοψ πόντος [ˌoɪˌnops· 'ponˌtos·] ([ˌɒinɒps· 'pɒndɒsˌ.])

Ὅπερ ἔδει δεῖξα [ˈhoˌpe 'reˌdeɪ· ˌdeɪkˌsɐ·] (['ɒpɛ 'rɛˈði· 'ðikˌ-saˌ.])

Ὅπερ ἔδει δεῖξαι [ˈhoˌpe ˌreˌdeɪˌdeɪkˌsɐɪ·] (['ɒpɛ ˌrɛðiˈðik-sɛˌ.])

Οὐ φροντὶς Ἱπποκλείδῃ [ˌʊuˌphronˌtɪs ˌhɪpˌpoˈkleɪˌdɐɪ·] ([ˌufrɒnˈdi sipɒˈkliˈðiˌ.])

Οὐκ ἂν λάβοις παρὰ τοῦ μὴ ἔχοντος [ˌʊuˌkɐnˈlɐˌboɪs· ˌpɐˌrɐˌtʊuˌmɛˈeˌkhonˌtos·] ([ˌukan-ˈlaˈvis· paˌratumiˈɛˈxɒndɒsˌ.])

Οὖτις ἐμοί γ' ὄνομα [ˌʊuˌtɪs·· ˌeˌmoɪˈgoˌnoˌmɐ·] (['utisˌ.· ɛˌmiˈɣɒnɒmaˌ.])

Πάθει μάθος [ˈpɐˌtheɪ 'mɐˌthos·] (['paθi 'maˈθɒsˌ.])

Πάντα ῥεῖ ὡς ποταμός [ˈpɐnˌtɐ ˌreɪ· ˌhɔsˌpoˌtɐ'mos·] (['panda ˌri· ɒspɒtaˈmɒsˌ.])

Πάντοτε ζητεῖν τὴν ἀλήθειαν ['pɐnˌtoˌtez zɐˌteɪn ˌtɐˌnɐˈlɛɛˌtheɪˌjen·] (['pandɒˌtɛ ziˈtin tinaˈliˈθjanˌ.])

Πίστις, ἐλπίς, ἀγάπη ['pɪsˌtɪs· ˌelˈpɪs· ˌɐ'gɐˌpe·] (['pistis· ɛlˌpis· aˈɣaˈpiˌ.])

Πόλεμος πάντων μὲν πατήρ ἐστι ['poˌleˌmos· 'pɐnˌtɔm ˌmemˌpɐ'tɛɛˌresˌtɪ·] (['pɒ'lɛ-mɒs· 'pandɒ(m) ˌmɛmbaˈtiˈrɛstiˌ.])

Πύξ, λάξ, δάξ [ˈpʉks· ˈlɐks· 'dɐks·] (['piks· ˌlaks· 'ðaksˌ.])

Ῥοδοδάκτυλος Ἠώς [ˌroˌdoˈdɐkˌtʉˌlos· ˌɐˈɔɔs·] ([ˌrɒðɒˈðak-tilɒs· iˈɒsˌ.])

Σπεῦδε βραδέως [sˌpeuˌdeˈˌ bre'dɐos·] ([sˌpɛʊðɛ· vra'ðɛɒsˌ.])

Σὺν Ἀθηνᾷ καὶ χεῖρα κίνει [ˌsʉˌnɐˌthɐˌnaar· ˌkɐɪˌkheɪˌrɐ· ˈkiiˌneɪ·] ([ˌsinaθiˈna· cɛ'çiˈra· 'ciˈni])

Τὰ πάντα ῥεῖ καὶ οὐδὲν μένει [ˌtɐˈpɐnˌtɐ ˌreɪ·· ˌkɐɪˌjʊuˌdemˈmeˌneɪ·] ([taˈpanda ˈri·· cɛʊˌðɛ(m)ˈmɛniˌ.])

Τί δύσκολον; Τὸ ἑαυτὸν γνῶναι [ˌ¿tɪˈdʉsˌkoˌlon·| ˌtoˌhɐɐʊˌtoŋ ˌnɔɔˌnɐɪ·] ([ˌ¿tiˈðis-kɒlɒnˌ.| ˌtɒɛafˈtɒŋ 'nɒˈnɛˌ.])

Τί εὔκολον; Τὸ ἄλλῳ ὑποτίθεσθαι [¿ˈtɪ ˈeʊˌkoˌlonˑ| ˌtoˈɐlˌlɔɪˑ ˌˌɦʊˌpoˈtɪˌthesˌthɐɪˑ|]
([¿ˈti ⁻ɛfkɔlɔnˑ| tɔˈaˑlɔˌˌ ˌˌipɔˈtiˑθɛsθɛˌˌ|])

Τί πρότερον γεγόνοι; Νὺξ, ἢ ἡμέρα; [¿ˌtɪ"proˌteˌɾoŋ ˌgeˈgoˌnoɪˑ| ¿ˈnʊksˑ ¿ˌɛˌɦiˌɛˈmeˌɾaˑ]
([¿ˌtiˈprɔˈtɛɾɔŋ ɟiˈɣɔˑniˌ| ¿⁻niksˑ ¿iiˈmɛˑɾaˌˌ|])

Τί τάχιστον; Νοῦς. Διὰ παντὸς γὰρ τρέχει [¿ˌtɪˈteˌkhɪsˌtonˑ| ˈnʊusˑ| ˌdɪˌɐˌpɐnˌtosˑ ˌgɐrˈtreˌkheɪˑ] ([¿ˌtiˈtaˈçistɔnˌ| ˈnusˌ| ˌðjapanˈdɔsˑ ˌɣarˈtrɛˑçiˌˌ|])

Τὸ γὰρ ἡδύ, ἐὰν πολύ, οὐ τί γε ἡδύ [ˌtoˌgɐr ˌɦeˈdʊˑ| ˌeˌɐm ˌpoˈlʊˑ| ˌʊuˈtɪ ˌgeˌɦɛˈdʊˑ] ([tɔˈɣa ɾiˈðiˑ| ɛˈam pɔˌliˑ| uˈti ɟɛiˈðiˌˌ|])

Τὸ δὶς ἐξαμαρτεῖν οὐκ ἀνδρὸς σοφοῦ [ˌtoˌdɪˌsek ˌseˌmɐrˌteɪnˑ| ˌʊuˌkɐn̩ˌdros ˌsoˌphʊuˑ] ([tɔˈði sɛkˌsamarˈtinˑ| ˌukanˈðrɔs sɔˈfuˌˌ|])

Τὸ πεπρωμένον φυγεῖν ἀδύνατον [ˌˌtoˌpeˌprɔˈmeˌnom ˌphʊˌgeɪ ˌnɐˈdʊˌnɐˌtonˑ] ([ˌtɔˌpɛprɔˈmɛnɔŋ fiˈɟi naˈðiˑnatɔnˌˌ|])

Υἱὸς μονογενής [ˌɦʊɪˌjoz ˌmoˌnoˌgeˈnɛɛsˑ] ([ˈjɔz mɔˌnɔɟɛˈnisˌˌ|])

Ὕστερον πρότερον [ˈhʊsˌteˌɾom ˈproˌteˌronˑ] ([ˈistɛɾɔm ˈprɔˈtɛɾɔnˌˌ|])

Φοινικήϊα γράμματα [ˌphoɪˌniˈteeˌɾɐ ˈgrɐmˌmɐˌtɐˑ] ([ˌfiniˈciˑa ˈɣraˑmataˌˌ|])

Φρονεῖν γὰρ οἱ ταχεῖς οὐκ ἀσφαλεῖς [ˌphroˌneɪŋ ˌgɐrˌhoɪˌtɐˌkheɪsˑ ˌʊuˌkɐsˌphɐˈleɪsˑ] ([frɔˈniŋ ˌɣaritaˈçisˑ uˌkasfaˈlisˌˌ|])

Χαλεπὰ τὰ καλά [ˌˌkhɐˌleˌpɐˑ ˌtɐˌkɐˈlɐˑ] ([ˌxalɛˈpaˑ ˌtakaˈlaˌˌ|])

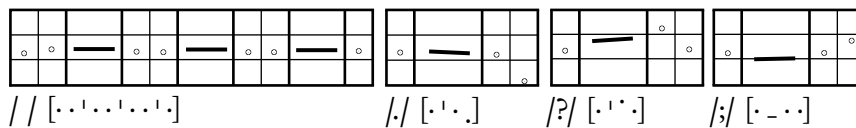Ψυχῆς ἰατρεῖον [pˌsʊˌkhɛɛ ˌsiaˌtreɪjonˑ] ([psiˈçi sjaˈtrɪɔnˌˌ|]).

## Hellenistic Greek

16.20. It had six short vowels and two diphthongs (which had not yet become /af, av; ef, ev/). It had the given xenophonemes (in round brackets) for loanwords, the sequences /ps, ts, dz, ks/, and [n≡C]. There was no prenasal voicing yet, and the (ancient) tonemes had disappeared, but the opposition C ≠ CC was preserved.

Although belonging to (quite) different situations and epochs, these rather synthetic descriptions are clear enough.
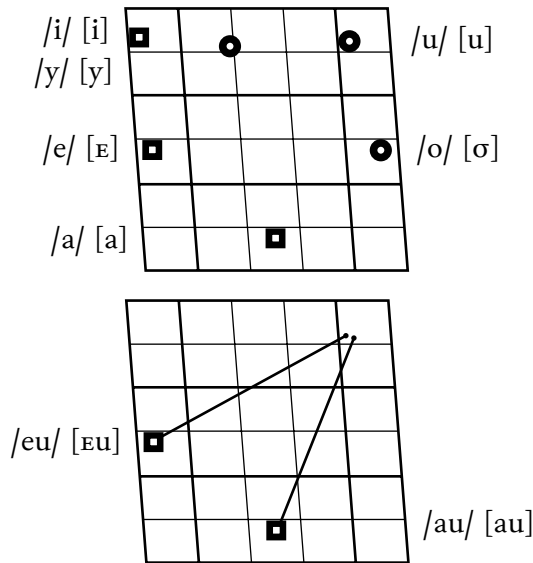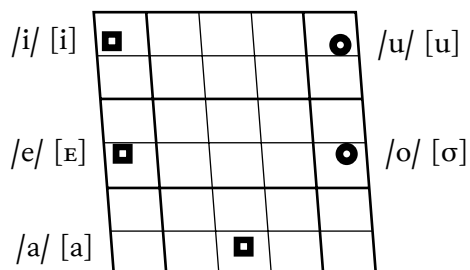


| m | [ɱ] | [ɲ] | n | [l] | [ŋ] |
|---|---|---|---|---|---|
| p (b) | | t (d) | | [k̟ (g̟)] | k (g) |
| | f v | θ\|s ð\|z | | [x ɣ̟] | x ɣ |
| | | | j | | |
| | | ɾ | | | |
| | [l] | 1 | | | |



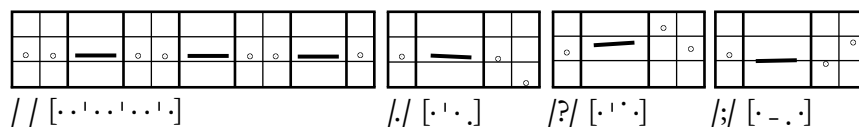/ / [··ˈ··ˈ··ˈ·]     /./ [·ˈ·.]     /?/ [·ˈˑ·]     /;/ [·₋··]

### Byzantine Greek

16.21. It only had the five short vowels typical of present-day Greek. It preserved three xenophonemes and presented some palatalized consonant taxophones.

After nasals, diphonic consonants were already voiced /NC̬/ [NC̬], with [n≡C]. Consonant gemination had been lost, and αυ, ευ were already as they are in present-day Greek, *ie* sequences of /VC/ [Vf, Vv].



/i/ [i]                              /u/ [u]

/e/ [ɛ]                              /o/ [ɔ]

/a/ [a]

| m | [m̩] | [ɱ] | n | [ɲ] | [ŋ] | [ŋ] |
|---|---|---|---|---|---|---|
| p (b) | | t (d) | | | [c ɟ] | k (g) |
| | f v | θ\|s ð\|z | | | [ç ʝ] | x ɣ |
| | | | | | j | |
| | | | ɾ | | | |
| | | [l] | l | [ʎ] | | |



/ / [··ˈ··ˈ··ˈ·]          /./ [·ˈ·.]     /?/ [·ˈˈ·]     /;/ [·–.·]

## English 'academic' Greek

16.22. It is the most possible far away 'reality', in comparison with all other phonopses given in this chapter, it is rather more complicated. All that, in spite of being a simplified version, *ie* with fewer taxophones than actually used in scientific and medical usages nowadays in English.

The first vocogram shows the 'monophthongs' (and some less favorable diphthongal variants given in the second vocogram): υ [y, ↓jʊ], ι [ɪ], ε [ɛ], α [ɐ, ↓æ], ᾱ [ɑː, ↓ɛɪ], o [ɒ], ω [ɔː, ↓ɜʊ]. Furthermore, ↓[ə, ɜː] are also included for frequent use in unstressed and stressed syllables, in accordance with typical British English practice.

The second vocogram gives the typical diphthongal realizations: αι [aə, ↓aə(jV)], αυ [aʊ, ↓aʊ(wV)] (including ᾱυ), ει [ɛɪ, ↓ɛɪ(jV)], ευ [ɛʊ, ↓ɛʊ(jV), ↓↓jµu] (including ηυ), οι [ɔə, ↓ɔə(jV)], ου [µu], η [ɛ, ↑ɛɜ], ῑ [ɪi], ῡ [yy, ↓jµu], υι [yy, ↑yɪ, ↓yy(jV), ↓jµu-(jV)], ωυ [ɔʊ, ↓ɜʊ].

As for the *consonants*, let us notice: τ [ʈ(h)], δ [ɖ], ϑ [θ, ↓ʈ(h)], φ [f], χ [x, x, ↓k(h), ↓k̟(h)], ψ [ps, ↓#s], ξ [ks, ↓#s, ↓↓#z], ζ [z, zɖ], λ [lV, ɫC, ɫ#], ρ [r, ↓ɹ, ↓ɻ], ῥ [r, ↓ɹ, ↓ɻ, ↑hr], and homorganic ν [n≡C] followed by a consonant, [n; m, ɱ, ɳ, ↓ɲ̟, ŋ, ŋ]; σ/ς [s] (but: + µ [zm], β [zb], δ [zɖ], γ [zg]).
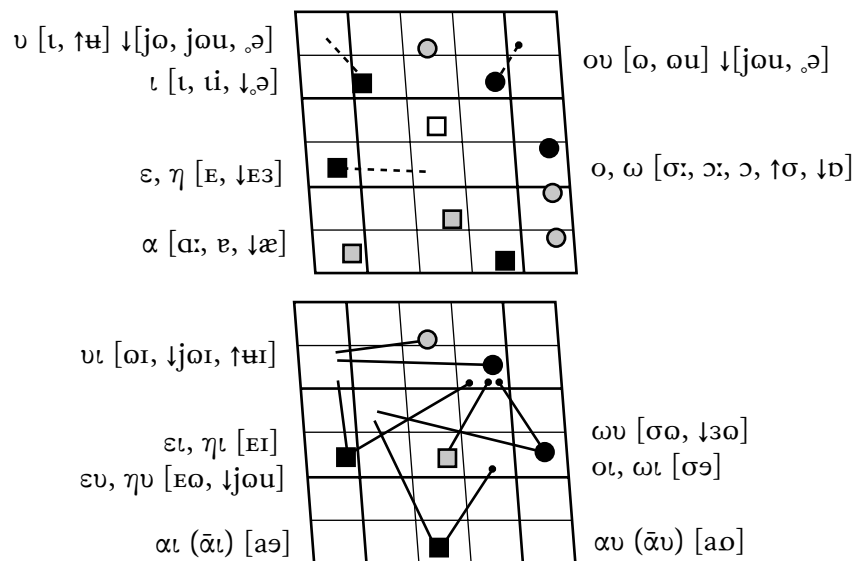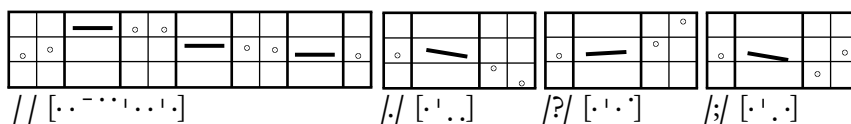
Geminates are rendered as [C] (or, possibly, as [↑CC]). A phonic zero corresponds to the 'rough breathing' ('), but some people may choose to insert /h/ ↑[h, ɦ].

Summary of main usual average English realizations (with some possible variants): α [ɐ, ↓æ], ᾱ/α [ɑː, ↓ɛɪ], ε [ɛ], η/η̄ [ɛɜ], ι [ɪ], ῑ [ɪi], o/ω/ῳ/ωυ [ɒ, ɔː, σω, ↓ɜω], υ [y, ↓jω], ῡ/υι [ʏy, ↑ʏɪ, ↓jμu], ου [ʊu, μu, ω], ει [ɛɪ], οι [σə], αι [aə], αυ/ᾱυ [aɒ], ευ/ηυ [ɛω, ↓jμu], VιV [VəV], VυV [VωV]; and: ' [Ø, ↑h, ↓ʔ], ' [Ø], '/ˆ [ˈ], ` [ˈ, ˌ, ˌ];

β [b], γ [g, ɡ], δ [ɖ, ↓dʑ], ζ [z, zɖ], ϑ [θ], ϰ [k(h), k̚(h)], λ [l, ɫ], μ [m, mʲ], ν [n, m, mʲ, ɲ, ŋ, ŋ], ξ [ks, ↓#s, ↓↓#z], π [p(h)], ρ [ɾ, ↓ɹ, ↓ɻ], ῥ [ɾ, ↓ɹ, ↓ɻ, ↑hr], σ/ς [s, #s, s#ǀ, zm, zb, zɖ, zg], τ [ʈ(h), ↓ʈ(h)ɻ], φ [f], χ [x, x, ↓k(h), ↓k̚(h)], ψ [ps, ↓#s].

There follows a possible sample of the Aesopian fable given in § 10.4, illustrating the kind of pronunciation generally used at school and university, unless more genuine, but more complicated, realizations are favored, as precisely in § 10.4.

[bə'ɻɛɜs khaə'ɛlɪɒs ˌpheɻjʊdə'nɑˈmɛɪɒs 'ɛɻəˌzɒɒ·ˈ 'ɛɖɒkˌsɛɪ ɖɛɪaʊ'ɻhʊəs ɛˈk̚hɛɪˌnσω ɻɛn'nɪik̚ɛɪ nɛpə'nɛɪmaə· ˌɒsən aʊ'ɻhɔːn 'ɛɲθɻəpɒɒ ˌɒɖσə'hpσɻən ɛk'djμusɛɪ.ǀ ˌkhaə- σωbə'ɻɛɜs ɑ·(ɹ)k'sɑˈməɒɒs (s)fə'ɖɻɒsɛn·ˈ ɻμuɖɛɪən'θɻσɒpu ɛnɻɛxə'mɛnɲu ˌɻɛsɛs'θɛɜɻɒz 'mɐlən ɛ'phɛk̚ɛɪɻσω.ǀ

ˌσωɖɛɪə'phσω ɻə(p)'sjμuxəs ˌkhɛɻəpσω'nɲuməˌnɒs·ˈ ˌɛɻi'mɐlɒŋ ˌkaəpəɻɻə'ɻhɛɻən ɛs- 'θɛɜɻə ˌpɻɒsə'lɛmbənən·ˈ 'ɛωs ə'pɒkə'mɔːn σωbə'ɻɛɜs ɻσω'lɪσω ˌmɛɻəpə'ɻɛɖəˌk̚ɛɪ.ǀ kə- 'k̚hɛɪnɒs ˌɻσωmɛm'phɻσωɻɒm mɛ'ɻhɻɪɒs pɻə'sɛləmpˌsɛɪ·ˈ ˌɻμuɖɛɪən'θɻσωpμu ˌɻɑ·pɛ- ɻɪ'sɑː ɻσ·nˌɪmə'ɻhɻɪɒɪ ɛˌpɒɻɪθə'mɛnɲu·ˈ sfə'ɖɻɒɻəɻɒn ɻə'khaσmə ʔɛ'phɛɻɛɪˌnɛɪ· 'mɛxɻɪs 'ʔμu pɻɒsˌɻɛnə'lɛɪən ʔɛn'ɻhɛxɛɪm ˌmɛdjω'nɑˈməˌnɒs·ˈ ə'pɒdjω'sɑˈmɛˌnɒs ˌpɒɻə'mμu ˌpɛ- ɻə'ɻɛωnɻɒs ʔɛˌpɻɪilə'ɻhɻɒn ɻə'phɛɪɛɪ.ǀ

¿ˈɐɻɛɜ'ɖɛsσə σω'mɻiiθɒs·ǀ ¿ɛɜbə'lɒməθɐ· ¿aʊ'ɻhɒm 'phɑ·lɪn 'lɛɡɛɪn·].

**Older graphic variants in Ancient Greek**

16.23. Here is the typical Greek alphabet, with some possible older variants.

Α (Α, Α, Α, Α, Α, Λ, ↄ) α (α, α, α, ɑ),
Β (Β, Β, Β, ß) β (β, β, β, ɓ),
Γ (Γ, Γ, Γ, Γ, Γ) γ (γ, γ, γ, ɣ, γ),
Δ (Δ, Λ, ↄ) δ (δ, δ, ∂),
Ε (Ε, Ε, Ε, Ɛ, Є) ε (ε, ε, ϵ),
Ζ (Ζ, Ζ, Ʒ) ζ (ζ, ζ, ʒ),
Η (Η, Η, Η) η (η, η),
Θ (Θ, Θ) ϑ (ϑ, ʋ, θ, θ, θ),
Ι (Ι) ι (ι, ι, ι, ɪ),
Κ (Κ, Κ, Κ, Ю) κ (κ, κ, x, κ, κ),
Λ (Λ) λ (λ, λ, λ, ʎ, λ, λ),
Μ (Μ, Μ, Μ, Μ, ϻ, ϻ) μ (μ, μ),
Ν (Ν, Ν, Ν, Ν) ν (ν, ν, ν, ν),
Ξ (Ξ, Ξ, Ζ, Ƶ) ξ (ξ, ξ),
Ο (Ο, Ο) ο (ο, ο),
Π (Π, Π, Π, Π) π (π, π, π, π, π, ϖ),
Ρ (Ρ, Ρ, Ρ) ρ (ϱ, ϱ, ρ, ρ, ρ),
Σ (Σ, Σ, C, C) σ-ς (σ, σ, σ, ϭ, c, -ς, -ς, -ς, -ς, -c),
Τ (Τ, Τ) τ (τ, τ, τ, ⱦ),
Υ (Υ, Υ, Ѵ) υ (υ, υ, υ, υ, υ),
Φ (Φ) φ (φ, φ, ϕ, ϕ, ϕ, ɸ),
Χ (Χ, Χ, Χ, Χ) χ (χ, χ, χ),
Ψ (Ψ) ψ (ψ, ψ, ψ),
Ω (Ω, Ω, Ω, Ω) ω (ω, ω, ω).