

# The Greek Alphabet

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## 1 The Origin of the First Alphabet

The Greek Alphabet is the first *true* alphabet in the world; it is derived from the Phoenician “Alphabet”, which in linguistic terms is not a proper alphabet, but an *abjad*.

Original	Phoenician	Greek	Name	Classical	Modern
'ālep “ox”	[ʔ] א	A, α	Alpha	[a]	[ɛ]
bēt “house”	[b] ב	B, β	Beta	[b]	[v]
gīml “camel”	[g] ג	Γ, γ	Gamma	[g]	[ɣ]
dālet “door”	[d] ד	Δ, δ	Delta	[d]	[ð]
hē “window”	[h] ה	E, ε	Epsilon	[e]	[e]
wāw “hook”	[w] ו	Υ, υ	Upsilon	[y]	[i]
zayin “weapon”	[z] ז	Z, ζ	Zeta	[dz], [zd]	[z]
hēt “wall”	[ħ] ח	H, η	Eta	[æ]	[i]
ṭēt “wheel”	[tʔ] ט	Θ, θ	Theta	[tʰ]	[θ]
yōd “hand”	[j] י	I, ι	Iota	[i]	[i]
kāp “palm”	[k] כ	K, κ	Kappa	[k]	[k]
lāmed “goat”	[l] ל	Λ, λ	Lambda	[l]	[l]
mēm “water”	[m] מ	M, μ	Mu	[m]	[m]
nūn “serpent”	[n] נ	N, ν	Nu	[n]	[n]
sāmek “fish”	[s] ס	Ξ, ξ	Xi	[ks]	[ks]
'ayin “eye”	[ʕ] ע	O, ο	Omicron	[o]	[o]
pē “mouth”	[p] פ	Π, π	Pi	[p]	[p]
ṣādē “papyrus”	[sʔ] צ				
qōp “needle eye”	[q] ק				
rēs “head”	[r] ר	P, ρ	Rho	[r]	[r]
šīm “tooth”	[ʃ] ש	Σ, σ, ς	Sigma	[s]	[s]
tāw “mark”	[t] ת	T, τ	Tau	[t]	[t]
		Φ, φ	Phi	[pʰ]	[f]
		X, χ	Chi	[kʰ]	[x]
		Ψ, ψ	Psi	[ps]	[ps]
		Ω, ω	Omega	[ɔ]	[o]

Here’s where the innovation of the Greek alphabet came from: There were several Phoenician sounds alien to Greek (א [ʔ], ה [h], ו [w], ח [ħ], י [j], ע [ʕ]), so Greeks had no reason to borrow them as is. Instead, the Greeks decided to use these symbols to designate *vowels per se*. This repurposing amounted to the invention of the the alphabet.

Later Greek also marked “rough breathing” [h] with a diacritic over the following vowel. Greek also has a voiceless [ɣ], which is written as a “ρ” with the same marking. English words written with an “rh” come from this (**r**hetoric, **r**hapsody, **r**hesus, **r**hino, etc.).

Additionally, in the Middle Ages, diatritics were added to vowels to communicate the Ancient Greek pitch accent system. Acute accents were for high pitch, grave accents for low, and circumflexes for high, then falling pitches on long vowels.

## 2 The Logic of the Ancient Greek Alphabet

	Labial	Dental	Velar		Front	Back
Voiceless	Π, π	Τ, τ	Κ, κ	High	Ι, ι	Υ, υ
Voiced	Β, β	Δ, δ	Γ, γ		Ε, ε	Ο, ο
Aspirated	Φ, φ	Θ, θ	Χ, χ	Low	Η, η	Ω, ω
Affricates	Ψ, ψ	(Ζ, ζ)	Ξ, ξ		A, α	
Nasals	Μ, μ	Ν, ν	Γ, γ			

Others: Ρ, ρ [r], Λ, λ [l], Σ, σ [s]

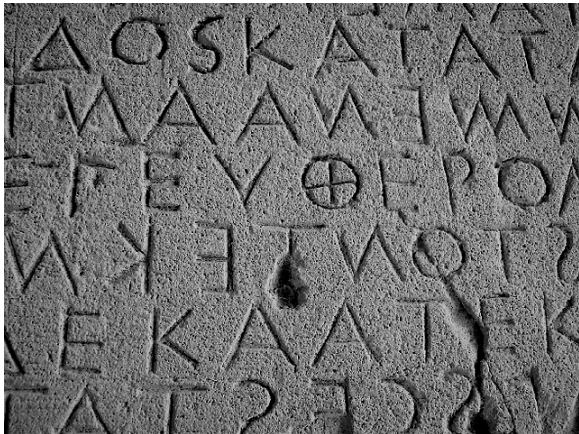


Figure 1: Boustrophedon (ox-turning) writing is the intermediate form between right-to-left and left-to-right writing.

Ancient Greek had a three-way voicing distinction between voiced plosives [b, d, g], voiceless plosives [p, t, k] and aspirated plosives [p<sup>h</sup>, t<sup>h</sup>, k<sup>h</sup>]; the writing system reflects this. There are also letters for the aspirates [ps], [dz/zd] and [ks]. These are pretty unique in that [ps] and [ks] are *not* phonemes, but are very common clusters due to the morphology of Greek where [-s] is the nominative suffix. You never will write *χσ*, but always *ξ*, etc.

Some Greek dialects have a five-vowel system, some have a seven-vowel system. Generally, Greek is has the most conservative vowel system of all Indo-European languages, remaining relatively unchanged since Proto-Indo-European. As an additional note, “Υ, υ” is pronounced as [y], not [i] in Attic (Athenian) Greek.

## 3 Things go a little haywire in Modern Greek writing

### 3.1 Aspirates become fricatives

In Ancient Greek, “φ”, “θ” and “χ” are all aspirates ([p<sup>h</sup>], [t<sup>h</sup>] and [k<sup>h</sup>]), but they each become the fricatives [f], [θ] and [x], which we usually associate them with in English.

### 3.2 Voiced Plosives

Notice that all of the Greek voiced plosives have become fricatives in modern Greek! This is because these sounds became fricatives by **lenition** (compare languages like Spanish). There are still phonemes /b/, /d/ and /g/ in modern Greek, but these are express by the digraphs “μπ”, “ντ” and “γχ” respectively.

**Opportunity:** Most languages with digraphs use digraphs to express fricatives or affricates: think “ch”, “th”, “kh” in various languages. But in Modern Greek, *this is the opposite*: there are digraph stops, but not fricatives, while the single characters are the fricatives.

### 3.3 Vowels

The vowel system of Modern Greek has greatly simplified, causing many vowel letters to become homophonous. “η” and “υ” have merged with “ι” at [i]. “ω” and “ο” merge into [o]. Many of the the commonplace diphthongs are lost, e.g. “οι” is pronounced [i].

### 3.4 Accent marks

Modern Greek no longer has a pitch accent system, although accent marks are still used in words in the language. Acute accents symbolize lexical stress in polysyllabic words. It also employs a diaeresis to show when a sequence of vowels is not supposed to be a diphthong.

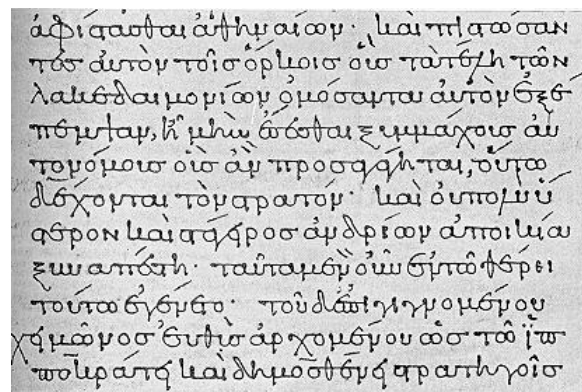


Figure 2: Miniscule (lower case) letters did not develop until after 1000AD as a kind of shorthand