

The Greek Alphabet

Its Origins, Evolution and Impact on the Development of Writing in Europe

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1. Introduction.

The Greek Alphabet is certainly not the first script on European soil. Yet it is the first “true” alphabet in the history of writing, in the sense that it is the first script, in which every sound in a word is represented graphically by a distinct symbol, contrary to earlier pictographic or syllabic (or quasi-syllabic) writing systems, which were in use at least till the end of the 2nd millennium BC in the Middle East, Asia Minor, as well as in Greece itself.

The Greek Alphabet had a great impact on the development of script in the European continent and the whole world. All writing systems nowadays in use in nearly the whole of Europe (i.e. the various versions of the Cyrillic and the Latin alphabets) can ultimately be traced back to it. The Greek Alphabet itself stands at the end of a long line of descent from several centuries older writing systems and forms part of a complex family tree¹. Furthermore, as far as the graphic representation of the Greek language itself is concerned, it replaced an earlier syllabic system, the Linear B (see below § 2). The extinction (of some) of the other earlier systems (see § 2) in use in Middle/Late Bronze-Age Greece, perhaps went hand in hand with the extinction of the pre-Greek languages they most probably served.

2. Earlier writing systems in Greece and Cyprus.

The following scripts were in use during the 2nd millennium BC in Greece and Cyprus, prior to the introduction of the alphabet:

a) Hieroglyphic, an undeciphered pictographic system in use in Crete and other islands of the Aegean in the first half of the 2nd millennium BC (not to be confused with the homonymous Egyptian script).

b) Linear A, an as yet undeciphered syllabic script, in an unknown pre-Greek language. The texts preserved can be dated to the first half of the 2nd millennium BC, are mostly incised on clay tablets and come mainly from the island of Crete.

c) Linear B. A syllabic script (containing also a wealth of ideograms in parallel and complementary use to the syllabograms) used in Greece during the second half of the 2nd millennium BC. Although it bears strong similarities in the forms of its symbols to the Linear A script, the exact relationship between the two is still a matter of dispute. The finds are mostly inscribed clay tablets from the archives of the palaces in the centres of the Mycenaean civilisation in Crete and mainland Greece. The texts belong to 14th-13th centuries BC and are in their overwhelming majority short and contain mostly lists of personnel, livestock, various commodities and artefacts such as olive oil, honey, wool, furniture etc. The script, deciphered in 1952 by the English architect Michael Ventris and the Cambridge classicist John Chadwick, was shown to represent a very archaic form of the Greek language, more archaic in many respects than the language of the early Greek epic poet Homer. It pushed back the beginning of the recorded history of the Greek language by several centuries. The script was highly unsuitable for the representation of Greek, since it lacked important phonemic distinctions, such as vowel length distinctions (e.g. /a/ vs. /a:/, the distinction between the liquids /r/ and /l/, or distinctions of manner of articulation, as in the velar stops /k/ : /g/ : /k^h/ (voiceless : voiced : aspirated).

d) Cyprominoan script (15th – 12th centuries BC). A syllabic script related to the syllabaries of Greece (Linear A and B) and the Cypriot syllabary. It records a pre-Greek language of Cyprus.

e) Cypriot syllabary. A syllabic script, related to Linear B, but more elaborate than the latter, in use in Cyprus for the representation of the Greek dialect of Cyprus from the 11th century to the 3rd century BC,

¹ See Coulmas 2003, ch.6.

deciphered in 1871. The island was settled by Greek populations from the Peloponnese after the fall of the Mycenaean civilisation in mainland Greece in the 12th century BC. The abandonment of the syllabary went hand in hand with the disappearance of the Cypriot dialect from written discourse.

3. The Greek Alphabet.

3.1. *The adoption of the Phoenician script by the Greeks.*

The Greek alphabet belongs to the phonographic type of scripts (Coulmas 2003:111), i.e. their graphic symbols represent individual sounds (phonemes). A symbol can of course be shared by more than one sound with common features, as was the case in the earliest Greek alphabet (e.g. no length distinctions in vowels, see below § 3.2).

The beginnings of the Greek alphabet lie in the Geometric Period (the so-called “Dark Ages”) of ancient Greek history (11th-8th century BC). It is generally agreed that the Greek alphabet is the result of the adaptation of the north Semitic Phoenician abjad-type² of script (quasi-syllabic), i.e. a script which, as other scripts of the ancient Semitic peoples, consisted only of symbols for consonantal phonemes. There is abundant evidence for the Phoenician provenance of the Greek alphabet:

a) The majority of the Greek names of the symbols have no Greek etymology but can be traced back to the Semitic appellatives, by which the letters were originally named according to the acrophonic principle, e.g. *alpha* ([?]*aleph* ‘ox’, [?] = symbol of the glottal stop in the International Phonetic Alphabet), *beta* (*bet(h)* ‘house’, symbol of the voiced bilabial stop /b/), *gamma* (*gim(m)el* ‘camel’, symbol for the voiced velar stop /g/) etc.³

b) The order of the letters in the Greek alphabet reflects the order of the respective Phoenician ones.

c) The shapes of the letters on the earliest preserved Greek epigraphic finds are very similar to the respective Phoenician ones.

d) The direction of the script. In the earliest preserved inscriptions in Greek alphabet, the script

runs from right to left, just as was the case with the various Semitic scripts, including the Phoenician.

e) Ancient Greek authors were aware of the Phoenician provenance of the alphabet. The historian Herodotus for instance records an old myth according to which the mythical Phoenician king Kadmos introduced the letters in Greece. This particular myth may have a nucleus of historical reality, yet refers to a king, who, if at all existent, should have lived in the period of the Mycenaean civilisation (16th-12th century BC), rather too early to have introduced the alphabet in Greece. The term *phoinikēia* (*grammata*) ‘Phoenician (letters)’ used to refer to the alphabet with regard to its provenance is also securely attested in ancient Greek inscriptions.

There are a number of issues concerning the process of adaptation of the Phoenician script:

a) The date of creation of the alphabet on the basis of the Phoenician script. There can be little doubt that the alphabet was adopted (and adapted) between the collapse of the Mycenaean civilisation in the 12th century BC which was accompanied by the abandonment of Linear B, and 800 BC, since the earliest, though very fragmentary and meager, Greek alphabetic epigraphical remains (some of them abecedaria) may belong to the first half of the 8th century BC or even somewhat earlier⁴. The period 1200-800 BC, the so-called “Dark Ages”, saw a substantial increase in the trading contacts of the Greeks with the Phoenicians in the Eastern Mediterranean. The first “fully” preserved Greek alphabetic inscription comes from Athens and can be securely dated to the middle or to the second half of the 8th century BC. It is the famous *Dipylon-inscription* on a vase. The inscription runs from right to left, as did the Phoenician script, but a number of the letters more or less differ in shape from their Phoenician originals. Most scholars would agree that (the end of) the 9th century BC is a highly possible date of adaptation (or at least a *terminus ante quem*), although the issue is still debated and alternative datings cannot be altogether excluded.

b) The place of adaptation of the Phoenician script / creation of the Greek alphabet. Many locations have been proposed on different grounds

² On the term *abjad* see Coulmas 2003:113.

³ On the history of the letter names in Semitic and Greek see Willi 2008.

⁴ Woodard 2010:44.

as the possible places of creation of the Greek alphabet. The range covers a wide geographic space, from Al Mina in Syria, where an important Greek trading station was founded during the “Dark Ages”, Cyprus (Woodard 2010:41-43) on the basis of the spelling habits of the Cypriot syllabary, the island of Rhodes, the island of Crete (where one of the most archaic Greek alphabets was used) and the Greek island of Euboea, which had also early extensive contacts to the eastern Mediterranean and especially the Phoenicians. The matter is still disputed.

c) Was the alphabet of single or multiple origin, i.e. was it created at a single time at a specific unique place, from where it spread to the Greek world? This is an also as yet unresolved matter.

d) The exact processes by which the original alphabet (if it was the result of a single adaptation process) split into the numerous types of alphabets of Archaic and Classical Greece⁵.

3.2. The structure of the earliest Greek alphabet. The earliest developments.

The Phoenician script, which itself existed in several variants, contained 22 symbols which, as already mentioned, represented only consonantal sounds. Of course not all letters retained their original consonantal values after the adoption by the Greeks. Some (as e.g. *theta* <Θ>) were used to denote sounds similar to the Phoenician ones or interpretable as similar by the Greek adaptors.

The major innovation of the Greek adaptors of the Phoenician script is the change of symbols for consonants absent from the Greek phonological system to letters for vowels. This was accomplished on the basis of acrophony. For instance, the name of the first letter of the Phoenician script began with a glottal stop [ʔ] which was exactly the phonetic value of *aleph*. The glottal stop was followed by the vowel [a] ([ʔa-]). The sound [ʔ] was absent from the phonological system of the Greek language of that time. The adaptors interpreted the name as beginning with a plain /a/, thus endowing the letter with the value of the first –according to their interpretation– sound of the name. Other vocalic (originally consonantal) letters might have

⁵ See for instance Woodard 1997.

received their vocalic value in much the same way or on the basis of acoustical similarities of the vowels with the Phoenician consonants⁶.

The earliest alphabet probably ended in *tau* (<T>). It also lacked symbols for the aspirated labial stop (/p^h/) and the aspirated velar stop (/k^h/), and there were no signs for the consonant clusters /ks/ and /ps/. But in most later local alphabets symbols for /p^h/ and /k^h/ were created. Finally, no vowel length distinctions were made.

Here are the symbols of the earliest Greek alphabet in their “modern” form, with their Greek names and the phonemes they originally represented:

A	<i>alpha</i> = /a/, /a:/
B	<i>beta</i> = /b/
Γ	<i>gamma</i> = /g/
Δ	<i>delta</i> = /d/
E	later name “ <i>epsilon</i> ” ‘plain’, i.e. ‘unaspirated e’ = /e/, /e:/
F	<i>digamma</i>
H	(<i>h</i>) <i>eta</i> = /h/
Θ	<i>theta</i> = /t ^h /
I	<i>iota</i> = /i/, /i:/
K	<i>kappa</i> = /k/
Λ	<i>lambda</i> = /l/
M	<i>my</i> = /m/
N	<i>ny</i> = /n/
O	= /o/, /o:/, later <i>omicron</i> ‘short o’
Q	<i>koppa</i> = /k/, the ancestor of Latin <Q>
Π	<i>pi</i> = /p/
P	<i>rho</i> = /r/
Σ	<i>sigma</i> = /s/, in some alphabets the letter <i>san</i> was in use (see below)
T	<i>tau</i> = /t/
Υ	= /u/, later <i>ypsilon</i>

The Phoenician script also contained an Y-shaped symbol called *waw* (phonetic value: [w]), which split to two different Greek letters:

The <Υ> (*ypsilon*), whose original Greek phonetic value was [u]⁷, and the <F> *digamma* (= “double gamma”, because of its shape), whose Greek phonetic value was that of a semivowel [w]. The *digamma* was not used in the Ionic-speaking regions

⁶ Powell 1991:42-46, Woodard 2010:34-35.

⁷ In the Ionic group of ancient Greek dialects this sound was fronted to /y/.

of the Greek world, because in the Ionic group of Ancient Greek dialects, the sound [w] disappeared before the time of the earliest (surviving) Greek inscriptions. <Y> was eventually placed right after <T> *tau* whereas <F> *digamma* retained the original position of *waw* after <E>.

The Phoenician script contained also a symbol called *qop(h)* which represented a consonant acoustically and articulatorily close to [k] (voiceless uvular stop [q] or other?). *Qoph* was transferred to Greek as *qoppa* (<Q>), but the distinction between the two Phoenician consonants was unknown in Greek. Thus the *qoppa* came to represent the same consonantal phoneme as *kappa* (<K>), namely /k/, albeit in different contexts (e.g. before other consonants, before back vowels). The *qoppa* (<Q>) survived in several local Greek alphabets (in Athens until the middle of the 6th century BC), but gradually fell out of use everywhere till the 5th century BC. In later periods it was used as a numerical symbol for '90'. It is also the direct ancestor of the letter <Q> of the Latin alphabet.

The Phoenician script also contained four symbols for sibilants or affricates with a sibilant component⁸: *samek(h)*, *shin*, *šade*, *zayin*.

The *samek(h)* is continued in some Greek alphabets as <Ξ> (*xi*) (Greek phonetic value: [ks]), but is absent from others (see below § 3.4).

Shin was a W-shaped Phoenician symbol of the palatoalveolar sibilant [ʃ] (the initial consonant of Engl. *she*). In most Greek alphabets the letter was adopted with the name *sigma* 'hissing, hissing sound' (<Σ>) as the graphic representation of the sibilant /s/. For the same (?) consonant in some Greek alphabets the letter *šade* (possible Phoenician phonetic value: [ts] or something similar) was adopted as *san*, its shape very much resembling the shape of <M>. Eventually only *sigma* would survive as the representation of [s].

Zayin is continued in the Greek alphabet as *zeta* (<Ζ>). The exact phonetic value of the latter is highly disputed, although it seems to have originally represented a voiced affricate ([dʒ] or [dʒ]) in Greek.

Further letters such as <Φ> (*phi*, phonetic value: [p^h]) were created after the adoption of the Phoenician script (see below § 3.4).

3.3. Direction of the script.

The Phoenician script ran from right to left, and this was the original direction of script in the Greek alphabet. The direction changed later to 'left → right' as it is today.

In several regions the *boustrophedon*-system emerged at an early date. The Greek word *boustrophedon* is an adverb meaning 'taking turns like the oxen (during ploughing)'. The name was given because the script changed direction in every line of the text, 'right → left', in the next line 'left → right', then 'right → left' again and so on. This system was abandoned relatively early, although there are regions, as e.g. Crete, where *boustrophedon* was current until the 5th century⁹.

There were no lower case letters and in the vast majority of cases no word division. The texts were written continuously, a fact which often creates problems in the interpretation of the epigraphic texts, especially those written in poorly recorded dialects. There were also no accent marks.

3.4. Later developments. The local Greek alphabets.

The Greek alphabet from the time of the earliest alphabetic inscriptions appears split into several local variants. The German scholar A. Kirchhoff divided the local Greek alphabets into three major groups. The classification is based on the overall structure of every alphabet (their closeness to the earliest alphabet) and the shapes of the letters. Kirchhoff displayed the distribution of the three major types of alphabets with a different colour on a map in the third edition of his book on the history of the Greek alphabet (1877), and it is by the names of those colours that the different types of alphabets are known since then:

(a) The "green" alphabets. This most archaic group of local alphabets was in use in Crete and the Cycladic Aegean islands of Thera and Melos. It is generally believed to reflect the oldest state of the Greek alphabet. It lacked symbols for the aspirated labial stop (/p^h/) and the aspirated velar stop (/k^h/), and there were no signs for the consonant clusters /ks/ and /ps/ (the digraphs <KΣ> and

⁸ Powell 1991:46-48, Woodard 2010:31-33.

⁹ On *boustrophedon* see Jeffery 1961:43-50.

<ΠΣ> were used instead). It further did not make any length distinctions in vowels.

For the representation of /p^h/ and /k^h/ various strategies were employed: In Crete the aspiration was omitted altogether and the signs for the respective unaspirated stops were employed (*pi* and *kappa* or *qoppa*, <Π>, <K>, <Q>), whereas in the other islands digraphs consisting of <Π> <K> <Q> + the letter *eta*, which was originally the symbol for /h/, were in use: <ΠH>, <KH>, <QH>.

(b) The “blue” alphabets, also known as “eastern” alphabets. These contained symbols for the aspirated labial stop (/p^h/) and the aspirated velar stop (/k^h/), namely *phi* (<Φ>) and *chi* (<Χ>) respectively. The alphabets of the Ionic colonies of Asia Minor (cities of Miletos, Ephesos etc.) and the older Attic (Athenian) alphabet belonged to this group, among others.

(c) The “red” alphabets, also known as “western” alphabets. These include signs for /p^h/ and /k^h/ and cross-shaped symbols (X, + etc.) for the consonant cluster /ks/, but most of the them no symbol for the cluster /ps/. The cities of the Greek island of Euboea (north of Athens) among others used a “red” alphabet. They founded colonies on the coast of South Italy (e.g. Cumae in the vicinity of today’s Naples) from which the alphabet spread to the Etruscans and from the latter to the Romans, something which explains the fact that the symbol for /ks/ has the shape X in the Latin alphabet. The “blue” alphabets instead used cross-shaped letters (called *chi*) for /k^h/). The Latin alphabet also retained the use of <H> as a symbol for /h/.

4. The way to the unification of script in the Ancient Greek world.

4.1. The Attic alphabet (the alphabet of Athens).

The alphabet of Athens belonged to the “blue” group. It had symbols for /ph/ and /kh/ (*phi* <Φ> and *chi* <Χ>) respectively and lacked symbols for /ks/ and /ps/ using digraphs instead. In its older form it preserved the letter *qoppa* (see above) till the 6th century BC. It did not make any length or height distinctions in the vowels: The letters <E> and <O> could be used for short, closed long and open long *e* and *o* respectively. That is, <E> and <O> represented three vocalic phonemes each:

<E> = /e/, /e:/, /ε:/

<O> = /o/, /o:/, /ɔ:/

The older Attic (Athenian) alphabet:

Α Β Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ο (Ϟ) Ρ Σ Τ Υ Φ Χ

4.2. The Ionic alphabet. Structure and spread.

As mentioned above, the Ionic cities of the Aegean coast of Asia Minor used an alphabet of the “blue” type. Furthermore this alphabet contained symbols for /ks/ and /ps/. The symbol for /ps/ (*psi* <Ψ>) was created in Ionia after the adoption of the Phoenician script. A number of alphabets in Asia Minor (mainly Ionia) and elsewhere also possessed a letter of non-Phoenician origin which is believed to be continued in much later times as the symbol which was named *sampi* and employed only as a numerical symbol for ‘900’ (ϗ). The shape of this additional letter was reminiscent of *tau* (Τ, τ) and it was mostly used as a symbol for what was written as <ΤΤ> (in Attic Greek) or <ΣΣ> in other dialects, e.g. *te*<τ>*ares* ‘four’ (Ionic Greek *te*<ΣΣ>*ares*, Attic *te*<ΤΤ>*ares*) etc. Its use was abandoned in the 5th century BC.¹⁰

Another important development concerns the letter *eta* (earlier *heta*, <Η>), originally the symbol for “aspiration” (/h/), a sound appearing almost exclusively at the beginning of the word. In the dialects of Ionia (closely related and belonging to the same group as the dialects of Athens and the island of Euboea) the phoneme /h/ was lost early. This change left the letter <Η> without a phonetic value. The Ionians re-used <Η> to represent the long open *e* (symbol in the International Phonetic Alphabet: [ɛ:]). In a last step a letter also for long open *o* (symbol in the International Phonetic Alphabet: [ɔ:]) was created, the *o mega* <Ω> (= “long o”) rendering the Ionic alphabet symmetrical in this respect:

Α Β Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ξ Ο Π Ρ Σ Τ Υ
Φ Χ Ψ Ω

From Ionia, more specifically the city of Miletos, the alphabet (and the orthographic habit of not marking /h/, a sound which was not lost in the

¹⁰ On *sampi* see Jeffery 1961:38-39, Buck 18, 349

Attic dialect until much later) first spread to Athens, where it was introduced by an official decree in 403/402 BC and, during the course of the 4th century BC, to the rest of the Greek-speaking world, replacing all former local alphabets. This is exactly the alphabet (the capital letters) which is still in use today for the representation of the Greek language.

5. Further developments: The accent marks and the *spiritus lenis* / *spiritus asper*. The minuscule.

There are clear testimonies in ancient sources as well as other evidence that Ancient Greek had a pitch accent, whereas Modern Greek has a stress accent, as do most modern European languages. Many otherwise homophonous forms were distinguished by the different accent (e.g. $\acute{\epsilon}$ = 'or' vs. $\hat{\epsilon}$ = 'he said'). As already mentioned, the Ancient Greek writing system did not have accent marks or symbols for /h/ (the *spiritus asper*) in the beginning of the word or its absence. The accent marks first appear in the Hellenistic period (around the end of the 3rd century BC) in papyri containing older works of poetry. Their original purpose was to help distinguish between forms that had become homophonous due to major sound changes that had begun to take place already in the late Classical (4th century BC) and extended into the Hellenistic period (after 300 BC). After passing through various stages, the accent marks, as well as the *spiritus asper* < ' > (marking the former presence of /h/) and the *spiritus lenis* < ' > (marking the former absence of /h/) became a regular part of the Greek writing system much later, in the 10th century AD¹¹. The accent marks, as well as the *spiritus asper* and the *spiritus lenis*, were abolished in 1982.

The Greek minuscule script appears for the first time in Byzantine manuscripts of the 9th century. It also contained a number of ligatures, one of them, the *stigma* < ς >, very much resembling the final < Σ > in shape. It was a ligature of < Σ T> and was in use from medieval up to modern times, also having the numerical value '6'.

¹¹ On the accentual system of Ancient Greek and the accent marking system see Allen 1968:106-124.

6. Alphabets derived from the Greek alphabet in Europe.

The Greek alphabet had a substantial influence on the development of writing in Europe, as well as outside Europe proper (Asia Minor, Armenia etc.):

A Greek alphabet of the "red" type (see above), in use in ancient Greek colonies of Southern Italy, was adopted by the Etruscans and from them by the Romans, being thus the ancestor of the Latin alphabet. The scripts of numerous other peoples of ancient Italy (Oscans, Umbrians etc.) can also ultimately be traced back to the Greek alphabet. Some Oscan inscriptions are also written in the Greek alphabet.

A number of Gaulish inscriptions from southern Gaul have also been found written in the Greek alphabet.

Later, in the 4th century AD, the Gothic bishop Wulfila developed an alphabet and spelling system based on the Greek model for writing down his Gothic translation of the New Testament for the Gothic Germanic peoples living along the Danube river.

Last but not least, the Greek alphabet formed the basis for the creation of one of the most widely used scripts in Europe and beyond, the Cyrillic alphabet, created in the 9th century AD for the purposes of Christian missions to the Slavs. The Cyrillic alphabet is nowadays used by all Slavic peoples who belong to the Eastern Orthodox Church or follow the Orthodox rite. It has also probably been the basis of the creation of the other old and nowadays obsolete Slavic alphabet, the Glagolitic.

Selected bibliography

There is a vast amount of literature on the Greek alphabet. Here only a small and by no means representative selection can be presented. The first two works do not directly concern the Greek alphabet.

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