THE ERROR OF ERASMUS
AND UN-GREEK PRONUNCIATIONS
OF GREEK

It does not appear to be generally known what factors and circumstances led to the so-called "scientific" pronunciation of Greek. All started with a practical joke played on Erasmus by the Swiss scholar Loritus of Glarus. Later, however, Erasmus found out the trick played on him, so he desisted from using the pronunciation he had proposed, but his error finally succeeded in oustiing the Greek pronunciation of Greek. The article exposes thoroughly the evolution of the pronunciation of Greek since the origins of the language.

1. The Problem

On being taught how to pronounce Greek words, the student of New Testament Greek is told that he is learning to pronounce the language not in the Modern Greek fashion, which is a late development, but in the way in which ancient Greeks used to pronounce it. A dichotomy is thus made between ancient and modern pronunciation of Greek, and the student is often given the impression that his pronunciation of Greek would be identical or almost identical with the way the great objects of his study —Paul, Luke, John— pronounced it, and to all intents and purposes identical or very similar to the way Greeks such as Socrates, Plato, and Aristotle sounded it in Vth and IVth century Athens. This pronunciation is presented as the scientific pronunciation of Greek in contradistinction to the Modern Greek pronunciation, which is considered to be a departure from it.

An inevitable consequence of the above situation has been certain widespread but inaccurate views with regard to the pronunciation of Ancient and Modern Greek as well as the relation of Modern Greek to the Greek of the New Testament. This may be conveniently illustrated by quoting three scholars. One scholar thought that what he called the Modern Greek pronunciation was the pronunciation that the Greeks applied to the Dhimotiki¹. The truth is that pronunciation is related to the letters, not to the form of words or the syntax. Another teacher of Greek thought that the Greeks had changed the pronunciation of certain letters, as for example, they
pronounced "p" as "f" and cited as instance the word *epta*, (= "seven"), which he thought Modern Greeks

pronounced as *efta* 2. As a matter of fact, in Modern Greek the word for "seven" occurs in two forms: as ἑπτά (epta) and as ἑφτά (efta), and each of them is pronounced according to its particular spelling. Finally, a third scholar thought that the relation of Modern Greek to the Greek of the New Testament was approximately that of Swedish or Norwegian to the Runic! The truth is that there is no truth in this statement.

It does not appear to be generally known what factors and circumstances led to this so-called "scientific" pronunciation of Greek. Those scholars who have worked with the very complex and technical evidence bearing on Greek pronunciation are extremely few. The subject demands not only a thorough knowledge of Greek (preferably in all its periods), an acquaintance with the inscriptions and the papyri, which bear witness to the spelling in ancient times, a good grasp of the historical developments in ancient times with regard to the change of alphabet (the adoption of the Phoenician alphabet) and its consequent accommodations as well as with the spelling ratification under Eucleides (403-402 B.C.), but, what is not least, also a mastery of the Greek rules regarding *phonology* (the study of the evolution of sounds) and even *phonopathy* (the pathology of sounds under various grammatical conditions for reasons of euphony, avoidance of hiatus, etc.).

2. The Error of Erasmus

From the introduction of Greek learning to the West in the XIII-XIVth century and until the beginning of the XVIth century, Greek was universally pronounced in the manner in which Greeks pronounce it today. In 1528 the Humanist scholar Desiderius Erasmus of Rotterdam, who for a time happened to live in Leuven, in the Low Countries, composed a Dialogue in Latin between a bear and a lion 3, in which he set forth a novel way of pronouncing Greek, which has since come to be called the Erasmian pronunciation of Greek, or Etacism, and to be regarded by its proponents as *the scientific pronunciation of Greek*. The incentive to write this book came from a practical joke that was played on Erasmus by the Swiss scholar Henricus (Loritus of Glarus, hence)
Glareanus. Glareanus, who had arrived from Paris, met Erasmus who, being inordinately fond of novelties and credulous, was eager to learn what was latest in the City of Lights; he told him that certain Greek scholars had arrived in Paris who pronounced Greek in a different fashion than the one received in Europe, and proceeded to give him an account of the new pronunciation. There was a verisimilitude in the new suggestions inasmuch as the Greeks gave to several letters the sound of ‘I’. Moreover, Latin transliterated e.g. the η of the second syllable of ἐκκλησία with e (i.e. ecclesia) rather than with i (i.e. ekklisia.), as the η is pronounced by the Greeks. In writing this dialogue Erasmus was motivated by an obvious interest in factual truth, and he initiated his novel pronunciation in the belief that it was actually used by Greeks. Not wishing to be anticipated, he immediately composed his Dialogus. Later, however, he found out the trick played on him, so he desisted from using the pronunciation he had concocted, abiding by the received pronunciation (and enjoined his closest friends to do the same), as did also his opponent Johannes Reuchlin and the latter’s nephew Philip Melanchthon as well as Martin Luther. But the "news" spread like wild fire, and after centuries of struggle with the traditional pronunciation, Erasmus’s error finally succeeded in ousting the Greek pronunciation of Greek and in establishing itself in all countries outside Greece (apart from a few exceptions).

This Erasmian pronunciation claims to represent a united system of pronunciation, but this is so only theoretically; in actual practice Greek is pronounced in conformity to German, English, French and so on, according to the mother tongue of the speaker (hence in our international New Testament conferences we are often conscious of a Babel-like experience when trying to figure out which Greek word the speaker was trying to pronounce)—although a Finnish New Testament scholar once assured me that his pronunciation of Greek was identical with that of Socrates and Plato! This state of affairs, naturally, robs the Erasmian pronunciation of the right to being called scientific, hence the so-called scientific pronunciation of Greek is—to paraphrase Hirsch’s phrase—nothing but a chaotic democracy of un-Greek pronunciations of Greek, each conceived according to what is deemed natural in the speaker’s own tongue.

3. Historical Circumstances

One may wonder, how was the practical joke on Erasmus possible? Why could not the proponents of the new pronunciation check this novelty
with the Greeks? Why did the Greeks not protest? What is the explanation for the rise and success of this novelty in pronouncing Greek?

There is an historical circumstance, which, as far as I can see, has not been taken into account. Following its move of its capital from Rome to Constantinople under Constantine, the Roman Empire of New Testament times gradually was transformed into a new Greek Empire, the Byzantine Empire. This Byzantine Empire had a life span of some 1100 years till the 29th May 1453, when Constantinople was finally taken by the Turks. Although many Greek scholars, at the advance of the Moslems, took their libraries and fled to Italy helping initiate there the Renaissance, there was no longer a Greek State which could watch over the fate of the Greek language and its pronunciation. The Greeks were engaged in a life-and-death struggle with the Turks, a struggle that went on for more than 200 years after the fall of Constantinople. Naturally, then, not only did they lack the means of resisting the new pronunciation, but they were, for the most part, unaware of what was going on in central Europe. The Western Europeans, on their side, having preached their funeral sermon over Greece, felt now free to dispose of her legacy as seemed fit to them.

The advent of the Greeks in Italy marked the beginning of the new "Western School" of classical studies, which, following the death of its founders, passed on into non-Greek hands. The (historical) grammarian A. Jannaris puts the matter pertinently when he says: "The first act of this school, still in its infancy, was to do away with the traditional pronunciation—which reflects perhaps the least changed part of the language—and then to declare Greek a dead tongue".

This, in brief, is the historical background which made possible the rise and establishment of the Erasmian pronunciation. Having established it, its advocates proceeded to produce "scientific proofs" for its correctness.

One of its foremost proponents was Friedrich Blass, whose arguments (set forth in a writing of 41 pages, then increased to 109 and again to 140 pages) have often been refuted. Many scholars, English, Germans, Americans, and Greeks, wrote against the Erasmian pronunciation, and the fight over the pronunciation of Greek—at its hottest in the nineteenth century—ended in a stalemate: the Greeks continued to pronounce Greek in the Greek way, while the other camp considered that they had discovered the "authentic" pronunciation of classical antiquity. Curiously enough and
self-contradictorily they went on pronouncing Homer, Plato, the New Testament as well as the Church Fathers— all in the same way!

4. The Historical Pronunciation of Greek

A classics professor once told me that he was aware that the Erasmian pronunciation did not reflect the ancient Greek pronunciation, "but", he explained, "it helps us to spell Greek correctly". Indeed, the awareness that the Erasmian pronunciation of Greek is inaccurate is now fairly widespread, and a welcome openness is noted in international scholarship.

As a matter of fact, during its four thousand year long history Greek has not been pronounced uniformly. Our written records take us back three and one half millenia. But there is no way of establishing how it was pronounced in the second millenium and in the first part of the first millenium B.C. The significant material comes to us in the form of inscriptions from the VIIth century B.C. on and papyri a few centuries later. In particular, the material that evinces not the official historical spelling, often found in public inscriptions, but the popular, often uneducated people’s spelling, that tried to reproduce the sounds of the spoken language, is the safest guide to the pronunciation of Greek in antiquity. Careful study of the evidence leads to the following results:

The letters α, ε, ι, κ, λ, μ, ν, ξ, ο, π, ρ, σ, τ, ϕ, ψ are not in dispute. They are pronounced by Greeks and Erasmians alike or practically alike. The disputed letters are the consonants β, γ, δ, ζ, θ, χ, the vowels ι, υ, ω, the diphthongs, as well as aspiration and accents. The pronunciation of the disputed letters is as follows (the Greek pronunciation is indicated only approximately: as in all other languages the sound quality can be learned only from native speakers):

<table>
<thead>
<tr>
<th>Letters</th>
<th>Greek pronunciation</th>
<th>Erasmian pronunciation</th>
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<tbody>
<tr>
<td>β</td>
<td>= v</td>
<td>= b</td>
</tr>
<tr>
<td>γ</td>
<td>= gh (as Eng. &quot;yet&quot; with and without the i-sound heard between the y and the e.)</td>
<td>= g</td>
</tr>
<tr>
<td>δ</td>
<td>= dh (as th in Eng. &quot;then&quot;)</td>
<td>= d</td>
</tr>
<tr>
<td>ζ</td>
<td>= z (as z in Eng. &quot;zebra&quot;)</td>
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In studying the question of Greek pronunciation, two important facts to consider are, (a) the change of alphabet from the pre-Phoenician alphabet (Linear B?) to the Phoenician, which took place before 800 B.C., and (b) the gradual adoption by Athens during the Vth century B.C. of the Ionic alphabet (that is, the Phoenician alphabet as perfected by the Ionians), which was finally ratified in 403 B.C. (being identical with the Modern Greek alphabet), and the consequent confusion in spelling in the pre-Ionic and the Ionic ways. That is, even after the Ionic spelling had set in, Greek words continued to be spelled in the pre-Ionic way down to the IIIrd century B.C. and in some cases to Byzantine times. This means that two systems were contemporaneously in use: the old, official system, often found in monuments of public character, such as a good many inscriptions are, and the new spelling which better expressed the actual sounds of the language, found mostly in inscriptions of a private character, but not seldom also in public inscriptions as well as in papyri. It is imperative to bear this constantly in mind if we are to solve a number of problems of detail. The argumentation here can become quite involved and complex. However, a lucid statement will be attempted here focusing on the spelling of the various sounds, the exchange of one letter for another, and the earliest date it is documented.

Prior to the adoption of the Ionic alphabet (Vth century B.C.) the letter
E represented the sounds which later came to be represented by E, H (as a vowel), and EI 14, while the letter Φ represented the sounds later represented by O, Ω, and OY 15. With regard to the consonants the later monograph Φ was during the same period represented by the digraph ΠΗ; the monograph Χ was represented by the digraph KH; the monograph Ξ 16 was represented by the digraph ΚΣ (later ΧΣ) 17; the monograph Ψ 18 was represented by the digraph ΠΣ (later ΦΣ) 19, and the monograph Θ was apparently represented by the digraph ΤΗ. These alternative spellings continue to the IIIrd century B.C. and later.

The letter Η originally had been used for aspiration. The letter was said to have been cloven into two, the left half becoming the spiritus asper (’), while the right half becoming the spiritus lenis (‘). Thus, the sign Η originally had two functions: one, to mark aspiration and two, as the second element in the digraphs ΠΗ, KH, and ΤΗ. In Ionia, where aspiration had ceased by the VII century B.C., they made the sign Η into a letter, the long sound EE (as French tête) 20. Thus, until the Vth century B.C. Attic had only five vowels: a, e, i, o, u for the five basic sounds of the Greek language ever since: a, e, i, o, u. The signs of Η and Ω, not having taken the place of any other vowel-signs, nor representing existing sounds 21, appear to have been adopted originally (Vth century B.C.) as mere technical, compensatory marks for E and O respectively in accented (and therefore lengthened) position. Finally, however, they came to be regarded as long vowels. This length was apparently due to antectasis (lengthening of vowel sound because of the dropping of a consonant, which thus disturbs the rhythm) or ictus (the stress placed on the syllable chosen to carry the beat of rhythm in verse, in distinction to the natural accent or stress of a word), since it is natural for Greek to pronounce all vowels isochronously (i.e. equally long).

Thus, in Attic inscriptions from early VIth c. B.C. on E occurs as EI 22 and later as Η, while O occurs as OY and later as Ω 23. After mid-Vth century B.C. when Η and Ω were taken as real letters, there is constant confusion of E with Η and of O with Ω. Between 450-300 B.C. there is constant confusion also of E with EI, of EI with E, of E with Η, of Η with E, of EI with Η, of EI with HÌ, of O with OY 24 (but hardly ever of OY with O or Ω 25), of O with Ω, and of ΩI (i.e. i-subscriptum) with ΩI.

Following 403 B.C. Η took the place of that E which appeared as "long"
in verse because of ictus, and which in other dialects had been represented by H. This H, which was now adopted for technical purposes, was popularly used for EI, which at this time was pronounced as I.

A diphthong consists of two vowels. Owing to the paucity of contraction in the Homeric epics and other early works, such diphthongs, in so far as they were original to that period, ought to have had a pronunciation whereby both vowels were sounded. In classical times, however, when contraction had been fully developed, they were pronounced monophthongally, i.e. as one sound. This is seen from the many examples in which I replaces EI since the VIth century B.C. as well as from the Delphic Hymns (after 146 B.C.), where, when a diphthong stands under a long note, it is not dissolved into its constituent parts, but is repeated in whole, as if it were a simple vowel. The pronunciation of diphthongs must take account of the accent. The basic rule of *trisyllabotony* (i.e. that Greek words receive the accent on anyone of the last three syllables) had as its effect that the accent was placed either on the first or on the second vowel of a diphthong: αι—αι, έι—ει, οι—οι, ου—ου, etc. Those diphthongs that were accented on the first vowel became spurious [originally written as (AE) AI, EI, OI, YI, later became AI HI ΩI YI] with the second vowel losing its sound and being reduced first to i-*adscriptum*, and later (XIIth c. A.D.) to i-*subscriptum*. Those diphthongs that were accented on the second vowel were pronounced monophthongally. Thus, the pronunciation of AI tended towards and finally became identical with that of E, that of EI, OI, and YI with I, while with Y increasingly moving towards I, the sound of U came to be represented by OY. This process, as the evidence of the inscriptions indicates, was, for the most part, initiated already in pre-classical antiquity.

Originally the diphthong AI was written as AE. This was changed to AI by analogy with EI, OI, YI. However, because of its original composition as AE, it did not acquire the sound of I, as did the other diphthongs, but retained its original sound of E.

The two diphthongs AY and EY have fared differently. The original AY = au and EY = eu, where the accent was on the first element thus: αυ, ευ becoming αυ, ευ gradually led to the consonatization of the υ and this finally took the sound of v before a vowel or a sounded consonant (see table, above) and the sound of f before a hard consonant. The *labialization* (the pronunciation with the lips, i.e. as consonants) of these diphthongs is witnessed since the Vth century B.C. (see below). Analogous sound was given to the third diphthong, HY, which was added at this time.
1. **Criteria for determining the Pronunciation of Greek**

To determine the pronunciation of the various letters evidence has usually been drawn from four areas: (a) indirect statements of ancient authors, such as e.g. word-plays and cries of animals, (b) the inscriptions and papyri, (c) comparative philology, in particular, transcriptions from and to other languages, chiefly Latin, and (d) modern phonetic theory. Earlier Erasmians used all four types of evidence, but did not succeed in establishing a credible case because the material proved to be intractable. More recent Erasmians avoid the inscriptions (particularly the earlier ones)—the primary evidence for the pronunciation of Greek—and seek, instead, to establish the pronunciation of Greek chiefly by phonetic speculation and comparative philology. Thus, in addition to Latin, English, German, French, Norwegian, Lithuanic, Hungarian, Persian, Sanscrit, Gothic, Slavic, Armenian, etc. are all used in the effort to determine the pronunciation of classical Greek, but strangely enough Byzantine and Modern Greek are almost completely left out of account! It thus becomes virtually a case of trying to establish the pronunciation of the English of Wyclif or Tyndale by setting aside Modern English and instead making use of all the other European languages. When Modern Greek is mentioned it is usually to illustrate its presumed distance from classical Greek. This strange methodology is here deemed misguided and lacking in scientific stringency.

Of the four areas of evidence, above (a) is of little value because the ancients never teach the pronunciation of the various letters and because their representations of animal sounds are not faithful to the actual sounds. (c)—and here it is mainly a question of Latin—is of meagre value because Greek sounds do not correspond to Latin sounds, transcriptional values being only approximate. (d) can be quite useful, but only when applied to the internal history of the evolution of the sounds of the Greek language, i.e. from Ancient to Modern Greek.

The dead letter of the inscriptions, taken by itself, cannot tell us anything about how the various signs were pronounced. We need a reference-point both as an initial index for the value of each letter, and against which to compare the phenomena of the inscriptions and evaluate the developments. This reference-point is (and was also for Erasmus) the living pronunciation of the Greek language. Hence, how some scholars can discuss ancient Greek pronunciation by ignoring or setting aside the Modern
Greek evidence is difficult to understand. But to be up to the task it is not enough to merely quote second-hand a few Modern Greek examples. One must be able to speak Modern Greek as a Greek if he is really to understand (at least present) Greek phonology, and to appreciate phonetic changes and the reasons for them, and so be in a position to interpret the data correctly.

We are thus left with the inscriptions and the papyri as the most relevant primary material. The reference point is the traditional Greek pronunciation constituting the other end of the axis Ancient-Modern, within which the evolution of sounds can be properly evaluated.

The pronunciation of each vowel and diphthong in particular becomes apparent from their interchange with one another witnessed in the inscriptions and the papyri. This interchange, this writing of one letter instead of another, shows that the two letters (or diphthongs) in question were sounded identically or similarly and hence were confused by those not acquainted with historical orthography (i.e. the etymological spelling). As our interest centers at the beginning rather than at the end of this process, the inscriptive material is the more pertinent of the two.

2. The Pronunciation of the Vowels and Diphthongs

1. There is never any question as to the closed, thin i-sound of i. This sound must be the reference-point for determining the sound of other vowels or diphthongs when they are confused with it.

2. EI = I. EI interchanges with I since the VI-Vth century B.C., indicating both that it was sounded monophthongally, i.e. as one sound, and that it was sounded as ‘I’, or something very similar to it.

The interchange becomes very frequent from the Vth and IVth centuries B.C. on. EI interchanges also with H already from the Vth and IVth centuries B.C. Since EI had already in VI-Vth century B.C. assumed or tended towards the sound of ‘I’, it is obvious that the H was tending in the same direction. This interchange becomes frequent around 200 B.C.

3. Y = I. The letter Y (which originally was = u, later perhaps û, though this is uncertain) interchanges with I already by 600-550 B.C.
and especially from the Vth century B.C. onwards. If its sound was not completely identical with that of I at this early stage, it was at least close enough to cause the confusion. This is corroborated further by the fact that Y interchanges with H and OI (which also had begun acquiring the sound of I) already by the IVth c. B.C. Y interchanges also with EI by the Vth c. B.C. The thinning down of the pronunciation of Y towards I is also confirmed by the fact that already in classical times Y had lost its original sound of U, which now came to be expressed by OY.

4. Yi = I. The I of this diphthong very early had come to be swallowed by or contracted with the Y, and the diphthong was pronounced as a simple Y (see above). This phenomenon is clearly witnessed since the Vth c. B.C.

5. OI = I. OI is confused with I at the latest by 329 B.C. The pronunciation of OI as I is confirmed further by the fact that in the same inscription (above, dated 329 B.C.) OI interchanges also with EI (which, since very early times, had acquired the sound of I), since the V-IVth c. B.C. with Y (see above) and at the latest since 168 B.C. also with H, both of which had come to be confused with I. The impossibility of pronouncing the diphthongs in diaeresis (i.e. each vowel distinctly) becomes obvious also from a word such as Eiòoi (see IGA 110, 2).

early VIth c. B.C.). This word, which consists of seven vowels, pronounced in the Erasmian way, would give the comical sound: ‘E-u-a-o-i-o-i’ — as if it were an exercise in vowel mnemonics. Surely the correct pronunciation was between ‘Eva-ū-ū’ and ‘Eva-i-i’.

6. H = I. The letter H interchanges with I already by the Vth c. B.C., i.e. before its official acceptance in 403 B.C., again confirming the popular pronunciation of H as I, i.e. contrary to the original intention of the theorists who had adopted it to represent positional E (i.e. technical length). The frequency of its interchange with I increases from the IIIrd century B.C. in the Ptolemaic papyri. The interchange of H with EI (which was pronounced as I already by the Vth century B.C.) becomes very frequent from around 200
B.C., again leading to the same conclusion. H interchanges even with Y, which was also tending in the direction of I. Owing to the historical orthography (i.e. spelling) prior to the adoption of the Ionic alphabet, which continued to be used after the adoption of the Ionic alphabet, H interchanges more often with E down to Byzantine times.

7. HI = I. The spurious diphthong HI interchanges with the proper diphthong EI very frequently from the time of the adoption of H (Vth century B.C.) to the 1st century B.C. Since the diphthong EI was sounded monophthongally (i.e. as a simple I), and the H of the spurious diphthong was the only letter sounded, it becomes again clear that the H and the I were, in these cases, sounded similarly if not identically, and hence were confused. The increasing substitution of HI by EI may be exemplified by the tribal names Aiγίς, Epεχθής, and Οἰνής, in which HI preponderates around 400 B.C., while EI has completely eclipsed HI by 300 B.C.

8. Ο, ΟΥ and Ω. The letter Ο interchanges with ΟΥ very frequently from the VIth century to the IIIrd century B.C. However, it is interesting to note that ΟΥ, pronounced distinctly as U, is hardly ever written instead of Ο or Ω. This shows that there was little distinction between Ο and Ω, but a clear distinction between Ο and Ω on the one hand, and ΟΥ on the other. From the IIIrd c. B.C. on Ο and Ω interchange very frequently, which implies that they had become equivalent.

9. ΟΙ and ΟΗ. ΟΙ and ΟΗ (i.e. the older and new spellings with i-subscriptum) interchange quite often.

10. ΑΙ = Ε. The diphthong ΑΙ (ΑΕ) interchanges with Ε already before 400 B.C. in Boeotia (where the Ionic Η had taken the place of ΑΙ) revealing the fact that ΑΙ was pronounced monophthongally and as Ε. The pronunciation of ΑΙ as E in Athens is proved from the addition of i to the diphthong, as well as from the confusion of e with Ε.

11. ΑΥ, ΕΥ and ΗΥ. The diphthongs ΑΥ, ΕΥ and ΗΥ retain the pronunciation of both letters, but already by the VIth c. B.C. the Υ is sounded as a consonant: v or f: av or af, ev or ef, and iv, or if. This is
proved beyond possible doubt by the mistake of the stone-cutters in substituting $F$ (digamma $\digamma$, which corresponded to the Phoenician letter $\text{waw}$, and had the sound of $\nu$ ) in place of $\upsilon$. It is further confirmed by the transliteration of these diphthongs into Latin, which use e.g. $\text{ev}$ for $\upsilon \upsilon$. That this $\upsilon$ cannot be mistaken for $\upsilon$ (i.e. $\text{eu}$) is rendered beyond all possible doubt by the fact that these words are also spelled with a double $\upsilon$.

Accordingly $\text{Lavinia}$ becomes $\Lambda\upsilon\nu\iota\alpha\iota\alpha = \text{Lavna}$ (Dionysius Halic. I, 70, 2) not $\Lambda\alpha\omega\omicron\upsilon\alpha$, which should have been the case if the sound desired was $\alpha\omega$, just as it happens with $\text{auctoritas} = \alpha\omicron\tau\omicron\kappa\omicron\tau\omicron\sigma\tau\omicron\alpha\tau\omicron\sigma$ (Dio Cassius, 55, 3. 4) This is also confirmed by the name $\text{Paulina}$, which is transcribed as $\Pi\alpha\upsilon\lambda\iota\nu\iota\alpha$ (i.e. $\text{Pavlina}$), though when the Latin sound is desired the word becomes $\Pi\alpha\upsilon\lambda\iota\nu\iota\nu\alpha$ ($\text{CIG}$ 6665). These examples confirm the pronunciation of $\Pi\alpha\upsilon\lambda\iota\nu\iota\alpha$ as $\text{Pavlos}$, not $\text{Paoulo(u)s}$.

In general, however, Greek seeks to transliterate foreign names by following the historical spelling as much as possible, even though it departs from phonetic faithfulness. Thus $\text{Lord Byron}$ is not $\Lambda\omicron\rho\iota\omicron\nu\tau\mu\iota\nu\psi\iota\nu\omicron\nu$, but $\Lambda\omicron\rho\iota\omicron\nu\tau\psi\omicron\nu\psi\iota\nu\omicron\nu$, even though every Greek knows that this is not the correct pronunciation of the original name. There is also ambivalence from case to case. Thus, $\text{Wilson}$ is $\Omega\upsilon\iota\lambda\iota\nu\omicron\omicron$, but $\text{Watergate}$, and $\text{Woodhouse}$ become $\Gamma\omicron\omega\upsilon\tau\epsilon\gamma\kappa\alpha\iota\tau\omicron$ and $\Gamma\omicron\upsilon\nu\tau\chi\alpha\omicron\upsilon\zeta$.

This evidence has hopefully made it clear that transliteration from other languages to Greek and conversely cannot lead to any safe conclusions as to the pronunciation of the Greek letters except in very broad lines.

Today in Greece the confusion of the various representations of the $\iota$-sound, i.e. $\iota$, $\eta$, $\upsilon$, $\epsilon\iota$, $\upsilon\iota$, $\omicron\iota$, is not infrequent among uneducated people. Thus, for example, writing a word with $\eta$ or $\omicron\iota$ instead of the correct $\iota$ does not imply that these Greeks pronounce the particular word differently, but that their spelling is faulty. Exactly the same phenomenon took place in ancient times, and these misspellings, witnessed in inscriptions and papyri, divulge to us the actual pronunciation of the living speech. The above interchanges of vowels and diphthongs show clearly that the pronunciation of these letters already in the Vth c. B.C. had begun to coincide with the so-called Modern Greek pronunciation (see table, above). This pronunciation may not have set in everywhere at the same time, but the process begun in classical times, or earlier, was not long (relatively) in establishing itself everywhere, even if in one or two cases it took many centuries to be completed (into Byzantine times, i.e. $\omicron\nu$). $\text{The important thing is not when this process ended, but when it started.}$ The Ptolemaic papyri from Egypt confirm the above conclusions for the last three pre-Christian centuries. However, the Egyptian papyri, being often written by non-Greeks, who in their approximation of the pronunciation of the Greeks had brought in the sounds of their native
The consonants in dispute are the mediae Β, Γ, Δ, the aspirates Θ, Φ, Χ, as well as Ζ. As is to be expected the interchange of these consonants, unlike the case of the vowels, is very limited. Hence their sound can be determined chiefly (but not solely) by the principle of syllabication, i.e. the rule that these consonants build syllables together with the vowel following them, and this determines their sound. Confusion in inscriptions is also valuable, while transcription from and to Latin is obviously also of some assistance.

Now with regard to the aspirates Θ, Φ, and Χ, they took the place of the earlier digraphs ΤΗ, ΠΗ, and ΚΗ. Accordingly, Latin ΤΗ, ΡΗ and ΧΗ were used to transcribe these Greek digraphs in the historical spelling of words. When the Greeks in time came to use the monographs Θ, Φ, Χ in place of the digraphs, the Romans had no equivalents for these letters except for Φ, hence Latin Φ is usually transcribed with Φ! This is, moreover, confirmed by the fact that the Φ is confused with the f –sound of the diphthongs αυ, ευ (pronounced af, ef), but not with Π. Were the Φ sounded like ΠΗ (i.e. Π with aspiration), it ought to have been confused with the Π. Finally, the fact that the preposition ικ does not change before κ, τ, π, but before θ, φ, χ it actually often becomes ιχ (e.g. ιχ Θετταλίας 64, ιχ θητῶν 65, ιχ φυλῆς 66, ιχ Χαλκίδος) 67, which would be impossible to pronounce as ek+h-K+h-αλκίδος, etc. (i.e. aspirating the X as k+h and the Φ as p+h, which would necessitate the resumption of the original position of the tongue after the utterance of the first aspirate) shows that there is no question of aspiration, and that these letters were pronounced monophthongally as th (like Eng. "thin"), ph = f and ch (like Germ. "Bach" and "Ich" [as pronounced in North Germany]) 68. Θ and Φ had taken just these sounds in Boeotia already in the Vth c. B.C.

Analogical considerations to the above in the case of Β, Γ and Δ lead to the conclusion that these letters already in Attic times were sounded as ν, gh (a sound which, before α, ο, ω, and ου as well as the consonants β, δ, λ, μ, ν, ρ, χ, is impossible to reproduce in English, but which before ε, η, ι, and υ it = γ in "yet" or German "j") and th (as English "then"), though it appears that in some positions (i.e. after a nasal) they could have had the sound of b, g, and d, as they do today, especially in uncultivated Greek, just as the double ΓΓ and ΓΚ: ἀγγελός (= agelos) and ἐγκλίσις (= eglisis). The
pronunciation of , ,  as v, gh, and th (as Eng. "then") becomes clear from the following considerations:

1. The κ of the preposition ἐκ before Β, Γ, and Δ as well as before Λ, Μ, and Ν is regularly changed to Γ for euphonic reasons. This circumstance clearly supports the sound gh rather than that of g.

2. The pronunciation of  as v is, in addition to the above, borne out also by the confusion of this letter with the u of the diphthongs αυ, ευ, ηυ, which have already been treated (above). Moreover, the β replaces almost always the F (digamma), which was sounded as v. Furthermore, the LXX transliterated with this letter the Hebrew waw: e.g. Δαβίδ, Ἡχοβά. Finally the Latin U or V is often transliterated with the β in Greek, e.g. Βεργίλιος (Vergilius), Βαλέριος (Valerius), Βατινίος (Vatinius), Βενύσα (Venusia), Βεντίδιος (Ventidius), Βαλεντία (Valentia), Βέσβιος (Vesvius), Βιέννα (Vienna), Βινίκιος (Vinicius), and Βονένιος (Vonones). The transliteration of Greek B with Latin B and conversely is due to the historical spelling. Moreover, the frequent transliteration of Latin U (V) with ου [e.g. Οὐέργιλιος (Vergilius), Οὐεσπασιανός (Vespasianus), Οὐίτέλλιος (Vitellius), Οὐάρφαος (Varro)], indicates that when Latin U (V) is rendered by Greek B the sound of the latter is not b, but v, i.e. not Bergilios, but Verghilios, hence it can also be spelled OUerghílios.

3. With regards to Δ, in addition to what has been said above, it may be pointed out that μηδείς, μηδὲν, μηθενός, οὐδείς, οὐδὲν, οὐθενός, etc. occur from 378 B.C. side by side with the earlier μηδείς, μηδὲν, οὐδείς, οὐδέν, etc., from 300 B.C. to about 60 B.C. they dominate, and from that time on the older forms take over again. The fact that δ does not become τ, shows that the sound of δ was closer to that of the θ and was not sounded as d. Δ interchanges with Β, e.g. Δελφός – Βελφός, άξελφος – άδελφος, which again precludes the sound of d. Also βδομός and όγδοος speak against the d-sound; it is physiologically easier to pronounce evthomos (or evdhomos) than [h]ebdomos (and we know that the various modifications in spelling — contraction, elision, crasis, avoidance of hiatus, etc. — were undertaken for the sake of achieving a smooth, easy and well-sounding pronunciation). Now to sound a word such as ἐκγδημία as ekgdemia (i.e. as three consecutive stops k-g-d) is almost impossible. Here one should bear in mind that Greek, basically a polysyllabic, vowel-loving language, avoids the concentration of unnecessary, difficult-to-
pronounce consonants so characteristic of German, cf. e.g. Nietzsche and other words with six or even seven consecutive consonants. Greek pronunciation cannot be determined by what is possible or acceptable in other languages.

Finally, the letter ζ, as its frequent replacing of Σ before Β, Γ, and Δ etc. shows, had a voiced σ-sound like English s or z in "rose" and "zebra" respectively, not the Erasmian dz (ds) or zd (sd). The same is shown by the misspellings Σεύς (= Ζεύς, 340 B.C.); Βυζάντιοι instead of Βυζάντιος; ἐπεζητείζευν and συναγωγιζόμενος instead of ἐπεζητείζεν and συναγωγιζόμενος. In Elis Δ was often substituted by Ζ. That this pronunciation of ζ as z was classical is shown by Αζείος, Αζείης, and Αζζείοι, as well as by Βυζάντιοι and Βυζάντιοι. That the ζ in all these cases could not have been sounded as dz or zd is shown by the resultant sound of the words, which is impossible to pronounce: A-zd-zd-e-i-o-i and Bu zd zd a-nti-o-i. No doubt the Greeks pronounced them as A(z)ziü (later A(z)ziι) and Bü(z)zantiü (later By(z)zántii) respectively.

5. Accents, breathings, etc. (Prosody)

Although a scanty use of rudimentary reading-helps was made already in the Vth c. B.C., the traditional system of prosodical marks is an Alexandrian invention (IIIrd c. B.C.). In Hellenistic times the number of these marks was ten: αι δεκα προσωπικίαι. These were of four types: stops, quantity symbols, accents and breathings.

1. Stops. The stops were the comma (ὑποστιγμῆ), the period (τελεία) and the colon (μέση στιγμῆ). (The interrogation mark (;) was added in the IXth c. A.D). These stops are normally absent from the inscriptions and early papyri since these texts were written in scriptio continua.

2. Quantity. Greek verse was based on "quantity", which was indicated by the symbols – (long) and _ (short). Quantity is achieved by rhythmical beat. This had been physically represented by the putting down of the foot (θέσις or βάσις τοῦ ποδός), which symbolized the accented and therefore longer syllable, and the raising of the foot (ἀφαίρει τοῦ ποδός), which symbolized the relaxation of accent, and therefore the shorter syllable. Hence the basic metrical unit was called πούς. Thus, if a syllable was placed in an "accented" position within the foot, it was considered long by position (θέσει μακρά); if in
an unaccented position, it was considered short (ἀρετή βραχεία). It would thus appear that the vowels as such were neither "long" nor "short", but

isochronous — as in Modern Greek. The situation became complicated with the adoption of Η and Ω. The syllables containing these letters came to be considered as naturally long (φύσι μακραι); consequently the syllables containing any of the other vowels, depending on their position in the metrical foot, were regarded as either μακραί, βραχείαι or διχρονοί, i.e. long, short or variable.

The remarks and speculations of the Alexandrian Grammarians (e.g. Dionysius Thrax, Apollonius Dyscolus, or Herodian) and others (e.g. Dionysius Halicarnasseus) lead to the conclusion that quantity had ceased to be felt already by the IIIrd c. B.C. The use of it in later versifiers (as Apollonius Rhodius, Aratus, Callimachus, Menander, Theocritus, et al.) would seem to have been a matter of tradition as it also was with the Byzantines (e.g. Nonnos, Musaeus Grammaticus). Moreover, the use in Homer and the early inscriptions of Ε and Ο for what later was expressed by ΕΙ, Η, ΩΥ and Ω — the καταξοχίπ "long" sonic letters, — their treatment of long vowels and diphthongs as though they were short and conversely, as well as other phenomena, would seem to indicate that quantity even in the Archaic period was not intrinsic to certain vowels, but that it owed its raison d’être to position and accent. The soul of verse was accordingly the rhythm, and this was indicated by the rising and falling of the accent as stress, the rising being indicated by the acute, and the falling by the grave.

3. Accents. Since accent as stress is integral to all speech, its existence in Greek must be as old as the language itself. Though accent was not indicated by any marks in Archaic works, the inscriptions or the earlier papyri, it was none the less presupposed. Thus, the ancients, without writing accents, could distinguish e.g. between Γλαύκος 87 and γλαυκός 88, Ζάνθος 89 and Ζανθός 90, ὄρος 91 and ὄρος 92, ω and ω 93; Plato spoke of Δίφιλος (< Διί φίλος) in which the original φι had lost its θεία (acute) and in the compound form received a βαρεία (grave), i.e. became unaccented 94, while the introduction of such marks was recent in Aristotle’s time 95 — though some of the accents attributed to Glaucus 96 (Vth c. B.C.) may have been written rather than merely acoustic.

Each syllable of a Greek word is accented. However, polysyllabic words stress one and only one of the syllables above all others. This dominant accent (stress) was called acute (ἀκτική) and was indicated by
the mark (ʼ), while all other syllables received the mark of the grave (´) (βαρεία): e.g. ΚΑΤΑΞΙΩΘΕΝΤΕΣ 97. The third mark to come into being was the circumflex (´) (i.e. περισσωμενή) placed on contracted vowels and explained as the combination of the acute with the grave (˘), i.e. the percussion or stress and its absence on two adjoining vowels prior to their contraction: e.g. ΝΟΟΣ > ΝΟΥΣ. However, the form of the circumflex only indicated that it was the result of the contraction of two vowels, one οξυομενον, but it had no rising and falling tone in pronunciation — an impossibility in actual speech, — for once the contraction had taken place there was but one position in the mouth and one dominant accent, the acute 98. This is confirmed also by the fact that in the rules governing accentuation, the circumflex functions exactly like the acute: cf. ἐκ τῆς γῆς ἐστιν with ἀληθῆς ἐστιν.

There are two important points about Greek accent which make it different from English and German accent. In English and German the stress of the accented syllable is stronger than that of the corresponding Greek syllable. In English, for example, the stressed syllable tends to overshadow the unstressed syllables, and some unaccented syllables are actually swallowed up in fast speech. (The same is the case with French). Hence also the great gradation in vowel-length. Greek, on the other hand, pronounces all syllables distinctly and isochronously with one of the syllables having a somewhat more dominant stress and hence being slightly longer than the others because of the percussion, but it is never so stressed as to eclipse any of the other syllables.

The second point is the rule of trisyllabotony. Unlike, for example, English and German, in which the accent can recede further back than the antepenultima (English: des′ -ti-tute-ness; des′ -spi-ca-ble-ness; German: Wie′ -der-seh-en; voll′ -au-to-ma-tisch; Be-klei′-dungs-vor-schrift-ten), so that sometimes a secondary accent becomes necessary (here indicated by ′′) (English: cir′′-cum-lo-cu′-tion; tet′ -ra-darch′′ -y; des′′ -pi-ca-bil′ -i-ty; German: Wind′ -schutz-schei′′ -be; Frau′′ -en-eman-ci-pa-tion′) the Greek accent can never recede further back than the antepenultima, e.g.: καταγιωσκομένους, γραμματοδιδάσκαλος, χοροδιδασκάλους, πιπράσκεθαι, ἐβδομηκοντακαιεκτονταπλασίων (Proclus, Hypo-typosis 4, 104) ἐννεακαιεικοσικαιεπτάκαιοιοπλασίακις (Plato, Respublica 587 e), and even Aristophanes’ jest-word (Ecclesiazusai 1169-75), which consists of 169 letters (in gen. 171), has but one accent! — in the penultima.

It is commonly assumed that ancient Greek accent was musical pitch-accent, not stress-accent, as though the Greeks always sung and
never used ordinary speech. This assumption is not free from serious
difficulties, but no adequate discussion is possible within the limits of this
paper. Suffice it to point out the following: (1) Stress need not exclude pitch,
and in fact no pitch is conceivable without stress. (2) All Indo-European
languages are based on stress accent. In Swedish, for example, which is the
most ‘musical’ of the Scandinavian languages, stress-accent is clear and
important. If Greek were different in this respect, it would have been unique.
(3) Since music was bound up with only one (the accented) syllable, then it
must be denied to all the others; how could Greek then be musical? (4) If
the accent was essentially musical, why was it then disregarded by meter,
which chose its own syllables — often unaccented — to express the pitch?
(5) Was there any relation between quantity and accent? We have seen that
before the period of contraction there was no "natural quantity"; syllables
were either naturally short or long by position. (6) Greek meter therefore
must have been based on rhythm, which consisted in thesis (ictus) and arsis
(fall) represented by the acute and the grave, the only ἀρσατομοσίαι known in
early times. And (7) the principle of trisyllabotony implies an expiratory
stress-accent. Since Greek accent lacked the intensity of e.g. English and
German accent, it lent itself readily to a treatment necessitated by meter.

However, irrespective of the situation in Archaic and classical times, it
is readily conceded by Erasmians that quantity and musical accent had in
post-classical times given place to stress-accent. The singing had apparently
ceased. The question here is not so much that in the first Christian century
accent was stress, which is conceded by almost every one, but how far back
in pre-Christian times does this stress-accent go?

It is a truism that the disappearance of quantity and the emphasis on
(Erasmians would say, emergence of) stress-accent go hand in hand. From
the remarks of the Alexandrian Grammarians we understand that quantity
was a matter of the past. But how long past? We have seen above that
quantity had started to vanish with the reduction of the diphthongs to
monophthongal pronunciation. Since this process was initiated already in the
Vth c. B.C., quantity had come under fire already by that time. This
disinterest in quantity contradicts the thesis of Erasmians that Η and Ω had
been adopted to express long vowels before left unexpressed. On the
contrary, it supports the thesis, above, that they were adopted as
compensatory marks to indicate technical length, and that they were not
used for pre-existent values hitherto unexpressed. No unexpressed sound
can have objective existence in a language! At any rate, the process for the
reduction of quantity was a protracted one, but it was practically complete
by the time of Jesus. The stress-accent therefore had come into prominence
long before that time. Now since accent is that which gives every word its
individuality and integrity, holding the sounds of the various syllables into a
harmonic relation to one another thus to constitute a whole — a unique
whole — the like of
which cannot be found, to pronounce Greek words in the undifferentiated
manner of the Erasmians as a string of unrelated sounds is to destroy the
living pulse of the language, that which makes it a living entity, speaking,
addressing the reader or listener, challenging him to understand and
respond. This stress-accent, which is supposed to have come into being
around the beginning of our era, has ever since held its iron grip upon the
language; its rules and principles are still unchanged in Modern Greek. If
accent had been a freak of the times, an incidence in language development,
would it have stayed unchanged, say, for 2000 years? This tenacity of the
Greek accent finds a satisfactory explanation only in its being an integral
part of the language; from the beginning (not merely from the 1st c. A.D.) it
has held the language together, it has given it meaning and rhythm.

4. Breathings. The spiritus asper and the spiritus lenis together with
the other prosodai were according to tradition, created by the Alexandrian
Grammarian, Aristophanes of Byzantium (II1rd c. B.C.), by splitting the H
into two halves (the left half indicating the spiritus asper and the right half
the spiritus lenis). The Alexandrians used the aspirate on such words as
should originally have been aspirated, and this custom was applied on MSS
in the VII1th c. A.D. In the XI1th c. A.D. the breathings took their present
form.

With regards to earlier times the situation is as follows: In a number of
inscriptions representing the lesser dialects, the sign H occurs as a kind of
aspiration. However, the main dialects, Ionic, Aeolic and for the most part
Doric, know nothing of aspiration 99. Attic, which is crucial for the issue
under consideration, is, during the period prior to 403 B.C., very ambivalent.
The H is often absent 100, more frequently it is present 101, but not always
placed correctly. For example, in CIA I, 324 (408 B.C.) the H is placed in
front of most initial vowels irrespective of whether the word is really an
aspirate or not 102, and again in CIA IV, b, 53, a, (418 B.C.) the H is absent
from all initial vowels except the word

\[ \text{i} \varepsilon \rho \circ \text{s} \] (four times). The same or similar word frequently occurs both with and
without the aspirate 103, and this applies also in the case of interaspiration
104.

The frequent occurrence of H with \( \rho, \lambda, \gamma \), etc. and \( F \) (digamma) 105 —
where aspiration is impossible— indicates that the sense of aspiration had
been lost. This together with the evidence cited above respecting the
extremely erratic use of H shows conclusively that aspiration had ceased in
Athens already before the end of the classical period. When observed in script it was as an old relic, not as a living item of language — just as it has been till our own day!

6. Corollaries

The above investigation has shown that the Vth c. B.C was a century of momentous changes for the Greek language. (Indeed, in certain respects the process had begun already in the VIth c.). With the completion of the 24-letter alphabet, the old, inexact way of spelling was giving way to what came to be the normative spelling, which has been in force for the past 2500 years. At the same time these accommodations in spelling were accompanied by important changes in pronunciation. The diphthongs were receiving a monophthongal pronunciation, assuming the sound of their second vowel, which for the most part was \( \varepsilon \). The \( \gamma \) was thinned down (at first perhaps to French \( u \) and finally) to \( \varepsilon \), the \( u \)-sound being rendered by \( \varepsilon \). Quantity, which evidently had never been integral to the vowels, but was a mere technicality, was now vanishing. The stress-accent, which must always have existed, comes clearly into prominence.

In short, all those elements that are characteristic of the Modern Greek pronunciation begin to make their appearance at this time. Even though we may not be altogether sure of the exact quality of sound for each letter we have considered above, we have sufficient evidence to know that the present Greek pronunciation was in all essentials establishing itself already in Vth and IVth c. B.C. This process was in some cases completed rather soon, while in other cases it was protracted. This means that the so-called "Modern Greek pronunciation of Greek" is not modern at all. Hence, it is not correct to speak of "the Modern Greek" and of "the scientific (i.e. Erasmian) pronunciation" of Greek. The correct procedure rather is to speak of the Greek or (still better) the historical Greek pronunciation of Greek and of the un-Greek, or artificial, or Erasmian, or Etacistic pronunciation of Greek.

Today the error of Erasmus has been perceived and lies at the basis of the awareness that the Erasmian pronunciation does not represent the ancient Greek pronunciation. This has led to a change of argument from scientific fidelity to practicality. Pronouncing Greek in the Erasmian way is supposed to save the student of Greek from the trouble of distinguishing between the spellings of the different i-sounds, and this facilitarian argument has become the main argument for persisting in a variety of pronunciations which are unnatural for Greek. However, this argument is not
entirely correct. In my twenty-three years of experience in teaching NT to Swedish students (also British, Belgian,

Dutch and others) (pronouncing it in the Erasmian way!) I have found that if my students have been able to distinguish Η from Ι, they have confused it with Ε. They also tend to confuse Χ with Κ and Θ with Τ. Moreover, the disregard of stress (the accented syllable) by Erasmians not only produces an un-Greek sound, but it also confuses different words spelled identically, whose difference in meaning is indicated by their being accented on different syllables\textsuperscript{109}. In other words, it is not quite true that this un-Greek pronunciation "helps us to spell Greek correctly"!

In view of the results of the above investigation there seems to be but one course to take: to abandon the Erasmian pronunciations and to return to the Greek pronunciation. This is "a scientific demand and a practical desideratum", to use a phrase coined by a great New Testament scholar in another connection\textsuperscript{110}, and that for the following reasons:

1. The Erasmian claim to pronounce Greek in a scientific way, that is, in the ancient Greek fashion, is beset by insuperable difficulties.

First, it is common knowledge that no-one can learn to pronounce a foreign language by merely reading books in that language or consulting dictionaries, even such as are provided with phonetic helps. One must expose oneself constantly to the sounds of that language by listening to and trying to imitate native speakers. And even then it will be extremely difficult to learn to pronounce the language as the natives do, if the learner is older than eight years of age. In the case of ancient Greek we have no longer the possibility to hear Socrates or Plato, let alone the ability as grown-up students of Greek to imitate its correct pronunciation.

Second, it becomes immediately incumbent upon the Erasmians that they apply to the texts of each particular period the pronunciation that was current at the time. Thus, Homer should be pronounced with the pronunciation that was used in his time, Plato and Aristotle with the V-IVth c. Athenian pronunciation (which was undergoing important

changes), the New Testament with a pronunciation that was practically identical with the Modern Greek pronunciation, and the Church Fathers in the Modern Greek way\textsuperscript{111}.

Third, four and one half centuries of trying to establish the scientific nature of the Erasmian pronunciation has led to results that are
demonstrably false, or that have failed to convince the theorists themselves. To illustrate this I will quote a few passages from one of the more recent defences of Erasmianism, Allen’s *Vox Graeca*. Practical difficulties in "distinguishing the voiceless unaspirated plosives from the aspirated, both in speaking and hearing" lead Allen to bypass the Erasmian pronunciation at these points and to counsel "pronouncing the aspirated plosives in the Byzantine manner" (i.e. Modern Greek)! (p. 27). On p. 35 a certain pronunciation is recommended not on scientific grounds, but "on practical grounds"! On p. 57 "any degree of aspiration that may have existed here can be ignored by the modern reader". When on p. 73 he cannot make up his mind, he recommends a certain course because "if we are wrong, at least we shall be doing nothing worse than, say, pronouncing Aeschylus as Demosthenes might have done; whereas, if we adopt the other alternative, we may be giving an author a pronunciation which he had never received in antiquity"! This revealing admission is most telling, but one also wonders why in the light of this Erasmians still persist in pronouncing e.g. the New Testament (even from their point of view) in an anachronistic way? On p. 83 the conclusions to which his study has led him are not good enough for recommendation, so he counsels "the simplest solution seems to be one which is in fact quite widely adopted, namely to anticipate developments by two or three centuries"! We may therefore, ask, Why not substitute the entire concoction by what we know to have been the pronunciation "two or three centuries" later, i.e. practically Modern Greek? With regard to the notorious "musical accent" of ancient Greek, Allen says on p. 118: "The author has listened to a number of recordings, recent and less recent, of attempted tonal [i.e. musical] recitation of ancient Greek, and, whilst some are less objectionable or ridiculous than others, has found none of them convincing". After such a confession, which is tantamount to a total failure by Erasmians to tell us how the so-called ancient Greek musical accent sounded, one would have expected the author to recommend the so-called Hellenistic stress-accent, (which still lives in Modern Greek). But nothing of the kind. The author goes on: "The carefully considered advice is therefore given, albeit reluctantly, not to strive for a tonal rendering, but rather to concentrate one’s efforts on fluency and accuracy in other aspects of the language" 112. In the light of the above admissions the inevitable question arises: Just what is the point of persisting in pronunciations in which even their supporters and theorists have lost confidence?

If it is so clear then that the pronunciation (in the strict sense, not only of the value of the various letters, but also of the sound quality) of Homer
and of classical antiquity is, in the absence of magnetic tape-recordings, for ever lost to us and beyond the possibility of recovery or reconstruction, *is it not, in that case, historically and scientifically more honest and correct to pronounce the language according to its own natural and historical development, rather than to impose upon it foreign sounds imported from other sister or rather "niece" languages within the Indo-European family? If only one pronunciation is to be used in pronouncing all these types of writing—coming as they do from a time span of 1200 years and more, during which period the pronunciation in fact evolved—then surely the Greek pronunciation (whose roots go back to the Vth and IVth c. B.C.), is the only legitimate candidate, not the artificial construct of Erasmus.

2. The Greek pronunciation of Greek is a *sine qua non* for Textual Criticism. The manuscript tradition is full of errors that were often the inevitable consequence of the double tradition—the living language and historical orthography—exactly the same type of errors that we find in the Attic inscriptions of classical times. The Greek pronunciation is the key to many variants and must be made the basis for a correct evaluation of their origin as well as their solution 113.

3. There is also the pragmatic issue. Pronouncing Greek in the Greek way will facilitate scholarly contact with Greece. Moreover, it will open an avenue with the starting-point of a little knowledge of New Testament Greek (or even classical Greek) to enter the wealth of Byzantine and Modern Greek, which are the direct descendants of Hellenistic and New Testament Greek. In this way New Testament Greek will cease to be treated as an island with its attendant misconstructions; it will be seen as part of a greater living unity, the Greek language, Greek thought, and the Greek literature as a whole. This will not fail to enrich the scientific study of the New Testament, which for too long has been deprived of inestimable insights by its persistent adhesion to the error of Erasmus.

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**SUMARIO**

Al estudiante de NT se le enseña a pronunciar el griego de modo distinto del del griego moderno, pero no son generalmente conocidos los factores y circunstancias que dieron origen a esta llamada pronunciación "científica" del griego, introducida por Erasmo de Rotterdam.
El autor expone en primer lugar cómo el origen de la pronunciación erasmiana se debió a que el estudioso suizo Lorituus de Glarus le informó de que habían llegado a París unos estudiosos griegos que pronunciaban el griego de modo diferente al acostumbrado en Europa (que entonces coincidía con el usado en Grecia). Como consecuencia, Erasmo publicó inmediatamente el *Dialogus*. Aunque más tarde descubrió que se trataba de un fraude y volvió a la antigua pronunciación, la "novedad" se extendió rápidamente y acabó por desbancar en Occidente la pronunciación griega del griego.

El artículo señala a continuación las circunstancias históricas que hicieron posible el error de Erasmo, expone la pronunciación histórica del griego y sus diferencias con la erasmiana y estudia la evolución de la pronunciación y de la grafía de la lengua griega desde sus orígenes.

Aduciendo una copiosa documentación, establece los criterios para la pronunciación del griego, en primer lugar, de las vocales y diptongos, luego de las consonantes. Se refiere a continuación a los acentos, espíritus y otros elementos de prosodia. Entre los corolarios de estudio resaltan tres: 1) La pretensión erasmiana de pronunciar el griego "científicamente", es decir, según el modo antiguo, encuentra dificultades insuperables. 2) La pronunciación griega del griego es una condición *sine qua non* para la crítica textual. 3) Desde el punto de vista pragmático, la pronunciación griega facilitaría el contacto científico con Grecia y abriría el camino a la riqueza del griego bizantino y del moderno. Se vería así el NT griego como parte de una unidad viva mayor, la lengua, el pensamiento y la literatura griegas como un todo.

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NOTES

1 N.B. Modern Greek has another form, the *Katharevousa*, or the "literary" (and till 1975 official) Modern Greek, which has its roots in the IIInd c. A.D. revival of classicism (Phrynichus, Moeris), though most Modern literature is written in the *Dhimotiki*.

2 The very same mistake along with a mispronunciation of two other words ascribed to Greeks occurs in no less a scholar than W. F. Howard, *A Grammar of New Testament Greek. Accidence and Word-Formation* (Edinburgh: T & T Clark, 1928, latest impression 1979) 45: "φθάνω is in MGr *ftáno*, αἰσθάνομαι is *estánome* ... ζεῦ = *efțá*, and other inaccuracies about Mod. Greek. Such inexactitudes about Modern Greek abound in F. Blass, *Über die Aussprache des Griechischen* (Berlin: Weidmannsche Buchhandlung, 1st ed. 1870, 2nd ed.
1882, and 3rd ed. 1888) e.g. 2nd ed. 83 (= 3rd ed. 97), 3rd ed. 103, while his
unacquaintance with Modern Greek phonology is seen throughout his book (cf. e.g. the 3rd
ed. 132ff.). Blass introduced, or at least contributed to, the inaccurate picture about Modern
Greek rife in the scholarly community ever since.

3 De recta Latini Graecique sermonis pronunciatione dialogus (Basiliae: Frobenius 1528).

4 Speculations along similar lines had been made earlier by the Spaniard Antonio of Lebrixa,
the Venice printer Aldus Manutius, and the Italian Girolamo (Hieronymus) Aleander.

5 The story of the fraud (fraude) to which Erasmus fell victim is related in an account dated
27 October 1569, and cited in one of the fervent supporters of Erasmianism, in Gerardi
Ioannis Vossii, Aristarchus, sive de arte Grammatica libri septem etc., (Amstelædami: I.
Blaev 1635, Editio secunda 1662) 106f. My thanks are hereby due to de heer Martin Engels,
Conservator of the Provinciale Bibliotheek van Friesland at Leeuwarden, Netherlands, who
kindly send me photocopies of the relevant pages of this book. The text runs as follows: "Ac
Erasmus quidem quâ occasione ad scribendum de rectâ pronunciatione fuerit impulsus,
paucis cognitum arbitror. Itaque visum hâc de adjicere, quod in schedâ quâdam habeo,
scriptâ olim manu Henrici Coracopetræi, viri egregiè docti, doctisque perfamiliaris. Eta ita
habet: 'Audivi M. Rutgerum Reschium, professorem Lingûæ Græcæ in Collegio Buslidiano
apud Lovanienses, meum piae memorâe præceptorem, narrântem, se habitâsse in Liliensi
pædagogio unà cum Erasmo, plus minus biennio eo superius, se inferiùs cubiculum
obtïntente: Henricum autem Glareanum Parisiis Lovanïan venisse, atque ab Erasmo in
collegium vocatum fuïisse ad prandium: quò cûm venisset, quid novi adferret interrogatûm,
dixisse (quod in itinere commentus erat, quod sciret Erasmum plus satis rerum novarum
studïosum, ac mirè credulum) quosdam in Græciâ natos Lutetiam venisse, viros ad
miraculum doctos; qui longè aliâm Græci sermonis pronunciationem usurparent, quàm quà
vulgò in hisce partibus recepta esset. Eos nempe sonare pro B vita, BETA: pro H ita, ETA:
pro õ æ, AI: pro OI I, OI: & sic in cæterïs. Quo audito, Erasmum paulò pòst conscripsisse
Dialogum de rectâ Latini Graecique sermonis pronunciatione, ut videretur hujus rei ipse
inventor, & obtulisse Petro Alostensi, typographo, imprïndendum: qui cûm, fortè aliis
occupatus, renueret; aut certè se tam citò excudere, quàm ipse voïebat, non posse diceret;
misisse libellum Basileam ad Frobenium, a quo mox impressu
s in lucem proïdit. Verùm
Erasmum, cognitâ fraude, nunquam eâ pronunciandi ratione postea usum; nec amïcis,
quibus familiariter vivèbat, ut eam observarent, præcepisses. In ejus rei fidem exhibuit
M. Rutgerus ipsi Erasmi manuscïptum in gratiam Damiani à Goes Hispani pronunciationis
formulam (cujus exemplar adhuc apud me est) in nullo diversam ab eâ, quàm passim docti &
indocti in hac linguâ utuntur'. Henricus Coracopetræus Cuccensis. Neomagi. CI I LXIX. pridie
Simonis & Iudæ."

6 This holds true also of the theorists. Cf., for example, the precepts of German theorists
(e.g. F. Blass, E. Schwyzer) with those of American and British theorists (e.g. E. H.
Sturtevant, W. S. Allen).


8 Of the Greeks, who brought the Greek letters —and hence the historical pronunciation of
Greek— to the West both before and after the fall of Constantinople, the following specimen
may be given: The Hesychian monk Barlaam the Calabrian (1290-1348) having studied at
Constantinople University (founded in A.D. 1045) was one of the first Greeks to spread the
knowledge of Greek in Italy. Among his pupils were Petrarch and possibly Boccacio;
Leontios Pilatos became professor of Greek at Florence University in 1360. His translation of
Homer was used by Petrarch and Boccacio in their educational reform; Manuel Chrysoloras was professor of Greek at Florence University (1396-1399); he lectured also in Pavia, Milan and Rome; Georgios Gemistos Plethon (1360-1452), an observer at the Synod of Ferrara-Florence (1438-1439), lectured during that period to the learned of Italy on Plato, and his superiority to Aristotle, introducing his audience to the differences between the two philosophers. The impression he made was such as to lead the Medici to found the Platonic Academy of Florence (1459); Archbishop Bessarion founded with the help of Pope Nicolas V an Academy for Greek philosophy in Rome; Ioannes Argyropoulos was professor of Greek at Florence 1456-1470, where one of his pupils was Politian; he was invited by Hungarian king Matthias I Corvinus to introduce Greek learning in Hungary; Demetrios Chalkokondylis (1423-1511) taught in Padua, then in Florence for 16 years, as well as in Milan at the invitation of Ludovico Sforza, at whose court at this time resided also Leonardo de Vinci and Bramante; Constantinos Lascaris taught Greek in Milan as well as at the monastery of San Salvatore (1468-1501), where he succeeded another Greek, Andronikos Galaxiotis; Andronikos Kalitkos taught in Padua, Bologna, Rome, Florence (1471-1475), and presumably in London, where he died; Georgios Heronymos was the first Greek to teach at the Sorbonne: among his pupils were German Joh. Reuchlin, Venetian Ermolao Barbaro, Dutchman Desiderius Erasmus, and Frenchman Guillaume Budé; Janos Lascaris (1445-1535) became Librarian of Florence, then succeeded D. Chalkokondylis as professor. At his recommendation Pope Leo X founded the Greek Gymnasium of Rome in 1514; Markos Mousouros together with Aldus Manutius published Greek classics in Venice; he taught in Padua: among his pupils were Frenchman Germain de Brie, German Johan Konon, Desiderius Erasmus, French Ambassador Jean de Pin, Hungarian humanist Janus Vertessy, and Galenius from Prague. He was the first to publish the complete works of Plato; together with Battista Egnazzio he founded the famous Marcian Library of Venice; Franciscus Portos (1511-1581) taught in Venice and Geneva; Aimilios Portos (1550-1610), son of the former, taught in Geneva, Lausanne, Heidelberg, and other German cities; Leon Allatios (1586-1669) was Librarian of Vatican and edited many Fathers and other writers, such as Chrysostom and Photius.

9 To whom, among others, I am greatly indebted; see his An Historical Greek Grammar Chiefly of the Attic Dialect As Written and Spoken From Classical Antiquity Down to the Present Time (London: MacMillan & Co., 1897) Preface viii.

10 Their task was made relatively easy on the one hand by the fall of the Byzantine Empire, which could no longer hinder this development, as well as the waning presence of Greek intellectuals in the West, and on the other by their ignorance of the inscriptions, which contradicted their conclusions. As it turned out, the pronunciation of Greek was determined almost solely with the pronunciation of Latin as the arbiter.

11 For example, a Greek scholar wrote a book of 752 pages (Θ. Παπαδημητρακόπουλου, Βάσανος των περὶ τῆς ἐλληνικῆς προφορᾶς Ἑρασμικῶν ἀποδείξεων, Ἐν Αθήναις, 1889) setting forth the evidence available then in vindication of the historical Greek pronunciation and at the same time showing the untenability of the arguments of Blass as well as other advocates of Erasmianism.

12 Regrettably the argumentation sometimes exceeded scientific propriety. F. Blass, for example, impelled by the nineteenth century Romantic view of ancient Greece, according to which all subsequent development was a retrogression (cf. his evaluative comment that the Italians are not "die reine Nachkommen der alten Römer", 1st ed. p. 8) called the Modern Greeks as well as the Byzantines "half-barbarians" ("Wohl sind die Neugriechen und waren die Byzantiner μιξοβάρβαροι" [1st ed. p. 8]) and condemned Modern Greek as barbarous,
corrupt and worthless (despite the fact that the three editions of his book give ample
evidence that he was not acquainted with Modern Greek phonology), cf. e.g. 1st ed. p.7:
"Die Sprache eines Homer oder Platon nach derjenigen der Syrer des dritten Jahrhunderts
oder der verkommenen Byzantiner umzuwandeln, wäre die reine Barbarei"; p. 8: "Folglich
ist die historische Grundlage [i.e. the Modern Greek pronunciation], welche die
Reuchlinianer [who pronounced Greek in the Greek way] im Gegensatz zu uns [i.e.
Erasmians] für sich in Anspruch nehmen, eine gänzlich nictige und wertlose" (italics mine),
and considered that the German pronunciation of Greek was practically identical with the
true and genuine pronunciation not only of Homer, but also of the entire period during
which the Greek language flourished — a strange position in view of the enormous
epigraphical evidence to the effect that the pronunciation was undergoing deep changes in
vth and ivth c. B.C.: "Unsere Aussprache ist in allen andern Punkten des Vokalismus fest
genug begründet als die wenigstens annähernd wahre und echte nicht etwa nur der
homerischen Zeit, sondern der gesammten Blütezeit der griechischen Nation. ... " (italics
mine). He ended both the 2nd and 3rd editions of his work by a remarkable sentence
expressing arrogance and at the same
time admission to have perverted ("Verhunzung") the pronunciation of Greek: 
"... die wirkliche Sprache aber mag eher noch mannigfaltiger gewesen sein, und es ist hiernach wohl vollends klar, welche ungeheuren Schwierigkeiten
die griechische Aussprache für den Ausländer dargeboten haben muss. Wir haben es
leichter, da uns niemand kontrollieren kann, und wenn es sich nicht schickt, ganz
gleichgültig gegen eine bessere oder schlechtere Aussprache zu sein, so wollen wir auch
andererseits nicht in pedantischer Weise uns so geberden,
as ob eines Tages die alten
Hellenen auferstehen und uns über die Verhunzung ihrer schönen Sprache zur Rechenschaft
ziehen könnten"! (italics mine).

13 The following statement is based chiefly on the evidence of the *Inscriptiones Graecae*,
particularly on the volumes of the *Corpus Inscriptionum Atticarum* (CIA, the most relevant
material for Athenian pronunciation), the *Inscriptiones Graecae Antiquissimae* (IGA), the
*Supplementum Epigraphicum Graecum* (SEG), and the *Corpus Inscriptionum Graecarum*
(CIG). Of these I have read most B.C. inscriptions in the four folio volumes of CIA, all of the
inscriptions in IGA, all the Attic inscriptions in the 39 volumes of SEG and consulted the rest
as well as other publications. Relevant material is found also in other collections of inscriptions,
as well as in various collections of Egyptian Papyri. This material shows in a
concise way the approximate pronunciation of the various letters.

14 E.g. the ostraca against Megacles and Aristeides: μεγακλεις ηπιποκρατος (for
Μεγακλής Ίπποκράτος) and οριστειδες λυσιμαχο (for Όριστειδης Λυσιμάχου) 482 B.C., see
'Ιστορία τού Ελληνικού Έθνους, Vol. II, Αθήναι 1971, p. 311, and CIA IV, 27, a 75, 445 B.C.:
εφεσιν εναι αθηναζε ε την ελλαιαν (= ἐφεσίν εἶναι Ἀθηναζή ἐς τὴν ἑλλαίαιαν).

15 E.g. the names ηπιποκρατος, λυσιμαχο (= Ἰπποκράτως, Λυσιμάχου) in the preceding note, and
CIA I, 32, A 9, 435 B.C.: ο βολε αυτοκρατορ εστω (= ἦ βουλή αὐτοκράτωρ ἔστω) — note the absence
of aspiration!

16 Among the earliest examples of ξ are: CIA I, 440, before 444 B.C.: ξυμιαχος, ξανθις; CIA

17 CIA IV, b,1, a,1, 570-560 B.C.: εδοξεον τει βολει και τοι δεμοι (= ἐδοξεόν τῇ βουλῇ καὶ τῷ δήμῳ). In
citing the inscriptions ordinary lower case letters will be used, capitals will be reserved for
special emphasis.
Among the earliest examples of Ψ, are: CIA I, 13,4, before 444 B.C.: ψέφισμα[α] (= ψήφισμα) and ibid. line 7: ἀνάγραψιν.


Among the earliest examples of h as a letter before its official adoption in 403 B.C., are: στρατηγός (CIA IV, 27, a, 77, 445 B.C.); ἄρρητος (CIA I, 23, a,2, before 444 B.C.); ἀνέθηκεν (CIA I, 398, 2, before 444 B.C.); Ἀριστοκράτης ... ἀνέθηκεν νικήσας (CIA I, 422, 1, 4, before 444 B.C.).

As late as c. 340 B.C. the letters reckoned as vowels are five: α, ε, ο, υ, Ω, cf. CIA IV, 4321, 3f.: το δὲ πέμπτον (i.e the last) τῶν φωνεῖστων Y. This quite clearly excludes Η and Ω from the list. These two letters are excluded even in an Ionic ABC of the vth c. B.C.

Thus, εἰμι occurs side by side with the infinitive μελεδαινεῖν (= μελεδαινεῖν) (CIG I, 8, B, c. 570 B.C.).

Cf. e.g. CIA IV, 27, a 75, 445 B.C.: ἐφεσεν εἰναι ἀδέναξε εἰς τὴν ἡελίαν (= ἐφέσεν εἰναι Ἀθήνας εἰς τὴν ἡλίαν); ἔδοξε τῷ βολῆ καὶ τῶν δήμων (IGA III, 3, 8, 458 B.C.; CIA I, 32, 435 B.C.) for ἔδοξε τῇ βολῇ καὶ τῶν δήμων; ἔδοξεν τοῖς δήμοι (IGA I², 1,1 (446 B.C.); SEG I, 4 (418 B.C.) στράματα (for στράματα).

Ο occurs as ΟΥ in SEG XII, 100 (377/6 B.C.) Μονοχιάως ... ἱσταμένο (no aspiration!); SEG XII, 87,19 (336 B.C.) βολεύη, cf. line 25: βουλευτήριον.

The sign Η continued for a time to be used as an aspiration mark, though its frequent absence in the same word implies that aspiration was not observed. See πορος (= ρός) (CIA II, 1063; 1066; 1074; 1075, all early ivth c. B.C.) and ρος (= ρός) (CIA II, 1064; 1069; 1070; 1071; 1072; 1073; 1076; 1079; 1080; 1081; 1082; 1085;1086; 1087; 1088; 1089; 1090; 1091; 1092; 1094; etc. all early ivth c. B.C.). CIA IV 54 b (363 B.C.) contains about forty words that should have received aspiration, of which not one is aspirated. This may, however, be due to the practice after Euclidean. See the discussion under "Breathings", below.

See the data bank Thesaurus Linguae Graecae: Delphi FD III:2 137, 2 ἐπὶ βρόμου, 3 Φιόμαλ, 8 and 21 μαντεῖειν, 11 θοματισι, 12 ὁμόειν, 14 αἰγόλοιοι, 20 θατοῖοι, 21 έειλε, ἐφρούρει, 138,15 ἀδείαν, 22 έχειεὶς).

Phonetically the various vowel-sounds are formed in the front (ι), middle (α, ή), and back (ο, ά) of the mouth cavity. As for the position of the lips, they are almost closed when sounding ι and ά, half open for e and o, and open for a. Between these fixed points: front, middle, back, and closed, half open, and open, there is an infinite scale of possibilities in pronouncing i, e, a, o and u -sounds, as is witnessed by the great variety of e.g. English and Swedish vowel-sounds. Thus, the transition, for example, of EI, Η, Υ, ΥΙ, Ω to ι cannot have been sudden and complete in each case, but gradual, presumably passing through intermediary stages. Because of the lack of intermediary letters which could register the phonetic progress of each letter-sound in its inexorable, forward drive to the sound of Ι, we can no longer trace and pinpoint the stages of this process to a particular date in history.
The mute evidence of the inscriptions and papyri can only tell us that H, Y, etc. are confused with I, but not whether in a particular case they were sounded completely identically or only similarly with I. However, the similarity must have been so great as to exclude other possibilities of confusion. Hence, we are justified in speaking of e.g. H, Y, Yi, El, Ol as taking on the sound of I, and these confusions begin in the vth c. B.C. (in some cases even earlier). When this process of levelling was completed for the entire Greek-speaking world—from Spain to India—is impossible to say. Presumably it was in the early Christian centuries. But this issue is irrelevant to the present quest, which is concerned with Athenian pronunciation in B.C. times and its relation to Modern Greek.


30 The cries of animals, often adduced by Erasmians, are not a safe guide to the pronunciation of Greek and should not be brought into the discussion unless we are of the opinion that frogs actually cry βρεκεκεκέξ κοάξ κοάξ (Aristophanes, *Ranae*, 210) and French oxen bellow mu (pronounce mü < mugir). How self-defeating this line of argument is can be readily seen from a comparison of the representation of such animal sounds in various European languages. According to Aristophanes (Vespae 903) the dog’s howling is αυ αυ. In Mod. Greek it is ὁβ ὁβ or more often γαυ, γαυ or γαβ γαβ (and the verb is γαγυιζω). In German, however, it is wau wau, while in Swedish it becomes vov vov (pronounce: voov voov). Surely dogs make the same sound in all countries. Similarly the cat cries in Greek μιαυ, but in German miau, while Shakespeare (1 Henry IV, 3,1) represents it as crying mew. The argument does not fare any better by associating απρομαί with the roaring of lions or wolves. This implies that Cratinus’s βη βη (see R. Kassel – C. Austin, *Poetae Comici Graeci* (Berolini et Novi Eboraci: De Gruyter 1983-), Vol. IV) can prove neither the pronunciation of β nor that of η.

31 Thus, Sturtevant, for example, hypothesizes on evidence he draws from other Indo-European languages apparently under the supposition that Greek must have had the same phonology. He largely disregards the evidence of the inscriptions, and makes a number of unproved assumptions. All his reasoning, however, is refuted by the concrete evidence of the inscriptions which make his book hopelessly mistaken. His conclusions regarding the change of sounds for each letter are most of the time wrong by several centuries.

32 For example, Allen, *Vox Graeca*, p. 19 states that τὸν πατέρα is pronounced in Modern Greek as tombatéra. The normal modern Greek pronunciation is ton patéra. However, in fast and careless speech the sound of ν before that of ι is often changed to μ and the sound becomes something between tom patéra and to mpatéra. In Greek generally μ+ι are used to render English, German, etc. b. In our case the ’b’-sound pends between b and p. This is true of Greek generally and especially of Southern Greece, including Athens. In Northern Greece, however, especially among populations originating in Pontus, the μ+ι tends to assume a thicker, rougher b-sound. But even so I have yet to hear a Greek say tombatéra. In any case, this pronunciation is not representative. On p. 67 Allen states that Modern Greek represents the bleating of lambs by με. Actually the form used in Greece is μπέ, or, to reproduce more faithfully the sound, it becomes μπέεε. I give these as examples illustrating the elusiveness of sound-values for non-natives and of the impossibility of rendering them accurately in English, German, etc.

See e.g.: Πισίας Τράτος (Hesperia Suppl. 8, 405, viith c.-550 B.C.) for Πεισίστρατος;


For Eudoea see e.g. IG 372 (vi-vth c. B.C.):? 29, 30, 31; Αριστοκλήδης along with: 72; Λεώκαρτιδες; 115 Ευθείδης and 117: Εὐθείδης; 274, 281: Νεκλέειδης and 275: Νεκλιδής; 312: Πειρίδου (for Πειρίδος) 359: Τείμαρχος and 365: Τιμαρχός; 364: Τιμαρχίδης.

For Boeotia the following examples may be cited, all viith c. B.C. or earlier: IG 223: εὐτελί (for εὐτελία); 259: Καλλιγιτόν (for Καλλιγιτέον); 300: [Αριστογιτόν (for Αριστογιτέον); Χαρόκλα (for Χαρόκλεια); Αὐτοκράταριa side by side with correct Αὐτοκράτατεια (245).


36 See e.g. 600-550 B.C.: Σκυθεύμιν and Σγευεύμιν (IGA 492); Διάφωνος (Beazley, Attic Black-figure Vase-painters, p. 176, 2, 550-525 B.C.) for Διάφωνος (writing the letters in wrong order is a frequent phenomenon in inscriptions); further, Λιοκλῆς (G. M. A. Richter-L. Hall, Red-figured Athenian Vases in the Metropolitan Museum of Art, I-II, New Haven, 1936, 19,4, 510 B.C.) for Λιοκλῆς; Ηποτέλε (Beazley, Attic Black-figured Vase-painters, p. 668, vi-
earlier evidence of the Attic inscriptions orthographically while the later evidence (by E. Schwyzer) for completion of this study. Unfortunately Threatte (like his predecessor, K. Meisterhans (rev. by E. Schwryzer) Grammar of Attic Inscriptions, Berlin 1900) generally explains the earlier evidence of the Attic inscriptions orthographically while the later evidence phonetically. No valid reasons for this inconsistency are given.

Footnotes:
37 E.g. Κύθηρ (SEG XVI, 123,28, 350 B.C.) for Κύθηρ.
38 E.g. Callias's word-play κέρδος αἰσχύνης ἀμείνων ἔλεγε μοιχὸν εἰς μυχὸν (mid. vth c. B.C.). See further Kojbow (IG II 1635, 81, 374/3 B.C.) for Κύθηρ; Ποιικίου (IG II 2407, 5, 350 B.C.) for Ποιικίου; Ποιοτίς instead of Ποιοτιός (Dethier, Sitzungsberichte der Academie zu Wien, 1859, Vol. 30, p. 431, iiird cent. B.C.); φιλοπίς instead of φιλοπίς (iiind cent. B.C.), see Δελτίον τῆς Εὐστίδος, 591, 24 Apr. 1888, p.2); ἀναγέτευς instead of ἀναγέτευς, Louvre Papyrus 50, 7 (160 B.C.). The exchange becomes very frequent after the 1st c. A.D.
39 E.g. Πειθαγόρα (SEG XXI, 126, 9, 430 B.C.) for Πειθαγόρας.
40 Also L. Threatte, The Grammar of Attic Inscriptions, Vol. I, Berlin 1980, p. 261 and 323, conceives that ν had in classical times become = γ. This book came to hand at the completion of this study. Unfortunately Threatte (like his predecessor, K. Meisterhans (rev. by E. Schwryzer) Grammar of Attic Inscriptions, Berlin 1900) generally explains the earlier evidence of the Attic inscriptions orthographically while the later evidence phonetically. No valid reasons for this inconsistency are given.
41 Traces of it appear already in Homer, cf. the optatives in Odyssey, XX, 286 δύνι instead of δυνή; XIX, 248 δαινεῖατο instead of δαινεῖατο; and Iliad, XV, 99 δαινεῖαι instead of δαινεῖαι.
The earliest example detected so far is Ηλείθυα (SEG XXXV, 37, 580-70 B.C.) for Ἴλείθυα. See also ἀπελευθέρωσις (CIA I, 273, vvth c. B.C.) instead of ἀπελευθέρωσις; Πελεύς (CIG 7403) instead of Πελεύς (CIG 7401); καταγωγία (CIA II, 678 B, 65, 378-366 B.C.) instead of καταγωγία; παρελθόν (CIA II, 811 c, 150, 326 B.C.) instead of παρελθόν; Ὀμηρία (CIA II, 789, 64, 373 B.C.; 793 d, 7, 357 B.C.) instead of Ὀμηρία; ἐκπεπλευ[x]ων (CIA II, 793 a, 7f., 357 B.C.) for ἐκπεπλευ[xων]; κωδών (CIA II, 701, 1, 68, 70, 344 B.C.) for κωδών; ὀργύα (CIA II add. 834, b, i, 9, 54, 329 B.C.) for ὀργύα.

An earlier example is Μίραι (SEG XXXV, 37, 580-70 B.C.) for Μοίραι. See further περιαλθήν (CIA II, add. 834, b, i, 61 = Ἐφημ. Ἀρχ. 1883-4 p. 109, 329 B.C.) instead of περιαλθήν; similarly SEG XIX, 58, vs. 85 (307/6 B.C.) ἀληθήν and SEG III, 147 (289/8 B.C.) τίναι ἀληθήν (for ἀληθηνί), and especially from the 2nd century B.C. on (e.g. συνηκολούθηκοτοι instead of συνηκολούθηκατοι, F. G. Kenyon, Catalogue of Greek Papyri in the British Museum, p. 9, 13-14).

Cf. δυνών (Ἐφ. Ἀρχ. 1883-4 p. 125, line 73) along with the correct δυνών (p. 119, line 34, and CIA 834 b II, 42 and 71, and 834 c 73, 329 B.C.). It is interesting to note that δυνών occurs in CIA II, 167, 78, 307 B.C.; 281, 5 (Macedonian times); 1138, 7, 302 B.C.; 281, 5, c., 300 B.C.; 380, 27, 229 B.C.; 591, 4, before 200 B.C.; SEG XIX, 525,42, 282/1 B.C. and SEG XIX, 80, 25 (date?), while δυνών occurs always in the older inscriptions, e.g. CIA I, 273, f 31, 420-416 B.C.; 312, 409 B.C.; 324, 408 B.C., though also later, e.g. SEG XXV, 65, 336/4 B.C. and SEG XXXIX, 175 Face A col. II,58, 300/299 B.C. See also CIA II, 168 (late ivth c. B.C.) Φιλαρεί (for Φολαρεί); Περιθείδας (Bull. Corr. Hell. 1890. p. 62, late ivth c. B.C.) for Περιθείδας; CIA II, 476, 12f., 101 B.C. τοῖς λοιποῖς for τοῖς λοιποῖσι. SEG XIX, 129, 2, 352/1 B.C. ἢν τῶι δευτέρας τοῖχος (also lines 6, and 17) may be a confusion for τείχως.

So far detected in papyri, e.g. Louvre Pap. 55, 11-15 (168 B.C.): ἃνυο instead of ὀνυ (3 times); Greek Papyri in Br. Museum, p. 9, 13-14 (162 B.C.): συνακολουθήκατοι σοι (for -κότι σοι); διοίκησαν (165-158 B.C.).

As examples may serve the following: Διμοσθένης (SEG XIX, 37 vth c. B.C.) instead of Δημοσθένης; Αθήνα (SEG XIX, 37, vth c. B.C.) for Ἀθήνα; Ἀρις (SEG XIX, 37, vth c. B.C.) for Ἀρις; Διμοσθένης (SEG XIX, 37, vth c. B.C.) for Δημοσθένης; Καμαρής (CIA I, 228, 12, 452 B.C.) instead of Καμαρής (CIA I, 233, 447 B.C.; 237,11, 443 B.C.; 239, 52, 441 B.C.; 240, 75, 440 B.C.); Σκικνήται (CIA I, 37, 79, 425 B.C.) instead of Σκικνήται; Εὐφίδως (Kretschmer, Vasenverschriften, 138, vth c. B.C.) for Εὐφιδῶς; Πιδασάς (CIA I, 37, 425 B.C.) instead of Πιδάσας (CIA I, 233, 447 B.C.); Ἡπειροκάρης (IGA 26, 425 B.C.) for Ἡπειροκάρης (CIA I, 273, b 3, 426 B.C.); συβήν (CIA I, 170, 19, 422-419 B.C.) instead of συβήν; also 172, 18 (420 B.C.); again Καμαρής (CIA I, 263, 9, 420 B.C.) and Καμαρής (CIA I, 37, 425 B.C.; 256, 17, 430 B.C.); τίνα διαίρεσιν τοῖδε instead of σώμα (SEG 130, 3-4, ivth c. B.C. or earlier); Σκικνήται (CIA I, 37 B, 31, 425 B.C.) and ΙΒ, 17 b, 31, 378 B.C.) for Σκικνήται; Μελισσάνδρου (CIA II, 801, 14, c. 350 B.C.) instead of Μελισσάνδρου; Θαῦμι (CIA II, 754, 13; 755, 7, 344 B.C.) instead of Θαῦμι; θερμαστί (CIA II, 754, 29, mid-ivth c. B.C., cf. 755, 21; 756, 8) instead of θερμαστί; ἡλίθων (CIA II, 1059, 9, 321 B.C.) instead of ἡλίθων; ἀμαξίβισος (CIA II, add. 834, c, 42, 329 B.C.) instead of ἀμαξίβισος; γειστόπως (CIA II, 167, 51, c. 307 B.C.) instead of γειστόπως; γειστόπως (SEG XIX, 58, vs. 63, 307/6 B.C.) and again γειστόπως (CIA II, 167, 63 and 114, 305 B.C.) instead of γειστόπως; also γειστόπως for γειστόπως (iiird c. B.C.); ὀρετής (CIA II, 258, 16, 304 B.C.) instead of ὀρετής; τίτθ (CIA II, 836, c-k, 43 iiird c. B.C.) instead of τίτθ (CIA II, 75, 29, 423 B.C.) Ηρακλεώτις (CIA II, 2936, iiird c. B.C.) for Ἡρακλεώτις; Ἐπικράτης (CIA II, 3222, iiird c. B.C.) for Ἐπικράτης; Εὐδίμητος (Bull. de Corr. Hell., V, 168, no. 33, iiird c. B.C.) for Διμήτριος; Δήμων (C. Carapanos, Dodone et ses ruines, Pl. XXXVI, no. 2 and 5, iiird c. B.C.) instead of Διώνων; οἰκής (CIG 1690, 21, iiird c. B.C.) instead of οἰκίας. The following readings are all dated before Roman times: Ἀριμνίσταε instead of Ἀριμνίστῃ; Ἡπειρότης χριστή
instead of Ἱππορώτης or Ἱππορώτις χρηστῆ διανεῖλαι (Dittenberger, Sylloge, 195,7) instead of διανεῖλαι; and ἱρών (Ross, Inscr. græc. ined. Fasc. III, p. 15, no. 264) instead of ἱρών. In Egyptian papyri διδασκαλικά (Louvre Pap. 51, 10, 160 B.C.) instead of διδασκαλία, and often in these papyri. See also SEG XIX, 2, 152/1 B.C. πειμπει instead of πειμπτει. Further: τί (Louvre Pap. 15 a, 15, 120 B.C.) for τίνα [μίαν]; Αὐρήλιας side by side with Αὐρήλιος (Mittheilungen des Arch. Instituts, Berlin, 1876, XIV, 114, 72, 3-6, 120 B.C.) for Αὐρήλιος; ψψψία (Mittheilungen, 110, 66, 120 B.C.) for ψψψία; φιλότα (Mittheilungen, 105, 51, 120 B.C.) for φιλότα. An example from Selineous, Sicily is: Ἀριστοφάνιος and Ἀριστοφάνης (SEG XXVI, 1113, late with c. B.C.);

47 To the examples cited under El, add e.g. τῇ βουλῇ (CIA II, 38, 7, before 376 B.C.) instead of τῇ βουλῇ; χαλκοθήκη (CIA II, 61, 7, 13, 357-353 B.C.) instead of χαλκοθήκη; ἀγάθη τύχει (CIA II, 186, 26, 322 B.C.) instead of ἀγάθη τύχη; ἀφείκε (CIA II, 811, c, 119) (323 B.C.) instead of ἀφίκε; Αἰνηέου (CIA II, 1049 A 55, 120 B.C.) for Αἰνείου; cf. also Αἰνείας (CIA IV, b, 34, c, 2, c. 434 B.C.) and Αἰνεῖαται (CIA I, 259, 18, 428 B.C.), with Αἰνεῖαται (CIA I, 234, 34, 446 B.C.); Ἀρησὸς πάγος (CIA III, 63, Augustan age; 452; 567, 39 B.C.; 587, 11 B.C. etc.) instead of Αρηίος πάγος; ήπτεκε (CIA II, 331, c. 280 B.C.) for ἠπτεκε. From the ivth c. B.C. on El stands for ΕI exceedingly often (e.g. SEG XXVI, 93, iii c. B.C.). This may be due to the old, historical spelling, however, since the new spelling with H occurs often in the same inscription (E.g. SEG XXVIII, 139, 42 (356-340 B.C.): τοιτεί παρακεῖται (also line 50); SEG XXVIII, 60 (270/69 B.C.): ὁδόει, ἐκκατεί, τῇ βουλῇ, καὶ τῷ δήμῳ (!), τεῖ Ἀρχηγετίδε, τεῖ θεω (!), τεῖ δήμοι[ατίμ]οι, ἀγάθει τύχει, τεῖ διοικεί, τεῖ ἄγοραί, στήλει λιθίνει) and even the same construction (e.g. CIA II, 38, 2 (380 B.C.): ἐν στήλῃ λιθίνει (also line 19); CIA II, 61, 7 (357-353 B.C.): ἐν τῇ χαλκοθήκῃ; CIA II, 114, 4 (343/2 B.C.): ἐν τῇ βουλῇ; SEG XXX, 69 (304/3 B.C.): τῇ Ἀγαθεί τύχει), it would seem that the interchange is due to confusion on account of similar or identical pronunciation.

48 See e.g. Κηθηρ (SEG XVI, 123, 28, 350 B.C.) for Κηθηρ.

49 The reason for this is probably that on the one hand E had a "closed" rather than open sound, and on the other that H had not yet been thinned down to such a degree as to coincide completely with I; for a long time H lay somewhere between E and I.

50 E.g. κλῆς (= κλῆς) (CIA II, 675, 44, c. 403 B.C.) and κλῆς (CIA II, 675, 47, c. 403 B.C.; 678, b, 64 (κλῆς), 378-366 B.C.); ληστῶν (= ληστῶν) (Mittheilungen, X, p. 57 line 11 346 B.C.); ληστῶν (CIA II, 804, B, b, 35, 344 B.C.); ληστῶν (= ληστῶν) (CIA II, add. 554 b, 14, 386 B.C.); καιτω[π]οὺντες CIA II, 316, 11, 282 B.C.; πεντεληκούς (Εφημ. Ἀρχ. 1886, p. 199ff. lines 79, 94, early iv c. B.C.; CIA II, 1054, 31, 33, 45, 347 B.C.) and πεντεληκούς (Εφημ. Ἀρχ. 1886, p. 201f., early ivth cent. B.C.); Ἀριστησίδης (CIA II, 814 a, B, 22; 864, 29, 400-350 B.C.) and Ἀριστησίδης (CIA II, 814, a, A, 22f., 374 B.C.); Ἀριστησίδης (CIA II, 864, iii, 21, 400 B.C.) and Ἀριστησίδης (CIA II add. 834 b, II, 60, 329 B.C.); Ἀριστησίδης (CIA II, 793, b, 70, 357 B.C.) and Ἀριστησίδης (CIA II, 811, d, 141, 323 B.C.).

51 For spurious οὐ (written as o) see e.g. μισθόντα (Mittheilungen. IX, p. 117, line 6, 570 B.C.); ἱδόντα (CIA IV, 27, a 13, 445 B.C.); ὑποργίοις (CIA I, 301, 31, 378 B.C.) for ὑποργίοις; [ἐν]οἰκίστων (CIA II, 17, 17, 378 B.C.) for ἐνοικιστῶν; ἀποστόλο (CIA II, 809, b 24, 325 B.C.) for ἀποστόλου; ναυσαύξημα (CIA II, 809, a 220, 325 B.C.) for ναυσαύξημα; and for original οὐ: ῥῶν (439 B.C.) for βων; again ῥῶν (SEG I, 4, 418 B.C.); τότο (e.g. CIA I, 128, 415 B.C.) instead of τούτω.
52 O interchange with Ω infrequently from the latter’s appearance to the end of the iiird c. B.C. (e.g. on Attic vases of vi-v c. B.C.; Δίφιλος (beside Δίφιλος), Διάώνιος (for Δίωνιος), Ἀλκίμαχος (for Ἀλκίμαχος), καλὸς (for καλὸς); Λιοντίς (CIA II, add. 17, 4, 378 B.C.; CIA II, 73, 11, 368 B.C.) along with Λεωντίς (CIA II, 835, 62, 320-317 B.C.), cf. also Λεωντίνος (SEG X, 48, 433/2 B.C.); Σάμων (for Σάμων) CIA II, 808 a, 130, 326 B.C.); λιπόν (for λιπῶν) (CIA 2836, 6, c. 300 B.C.); μημεία (Mitthei-lungen X. 363) for μημεία τῶν ἔγγονων, παραγγελλόον (Εφημ. Αρχ. 1884/85, p. 137, 11 and 14) (for ἔγγονον, παραγγελλόμεναν); θεοδοσία (CIA 3216) for θεοδοσία; γνώμη (CIA 3580) for γνώμη; Λυσίαν side by side with Λυσίον (Εφημ. Αρχ. 1886, p. 158, 103; 264; 291); αὐτῷ for αὐτοῦ (CIA II, 578, 23, 344 B.C.). The instances of confusion of these two letters in the papyri are times without number.

53 E.g. κομοδία (for κομῳδία) (ivth cent. B.C.); τὸ δήμοι (CIA II, 277, 7, c. 300 B.C.) for τῷ δήμῳ; τὸ ierwm (300 B.C.) for τῷ ἱερῷ.

54 Αριστιχος (cf. IGA 300, vth c. B.C.?) (for Ἀρισταιχις, cf. IGA 397 and 398, vth c. B.C.?), Ἕγοσθενις (for Ἐγοσθενίτης), Δημήτης (for Δημητης), Ἡχύς (for Ἡχύων), Φίδωκε (for Φιδικως), χιρή (for χιρέ), ταμή (for ταμήα), τίττομ (for τίττουμ), κλή (for κλαῖο) Αθανάκι (for Ἀθανακίων).

55 See e.g. Ελεοντίς (CIA I, 228, 4, 452 B.C.) (pronounce Ele-i-te, not Eia-i-ta-i); Ἑλαιός (CIA II, 678, 10, 378 B.C.) (pronounce: elé-i-nos, not ela-i-inos); Ἀθηναίων (CIA II, 780, 14, c. 300 B.C.) (i.e. Athene-i-kón, not Athena-i-i-kon); Ἐρμαιον (CIA II, 781, 4, 5, c. 300 B.C.) (i.e Erme-i-kón, not [H]ermá-i-i-kón).

56 See Δικαίωκα (|= Δικαίρης?) in Corp. Vas. Antiq.: Gr. Brit., Vol. 4, pl. 39, 2 a-b (end of viθ c. B.C.); Χαιρία τικά (W. Klein, Die griechischen Vasen mit Lieblingsinschriften, 2. Aufl. Leipzig 1897, no. 38, 530 B.C.); χίρε καὶ πιαί (J. D. Beazley, Attic Black-figure Vase-painters and Attic Red-figure Vase-painters, 2nd ed. Oxford 1971, p. 77, 1, 530 B.C.) for ποί (i.e.); μο[δ]ικαι καὶ πιτέο (Hoppin, Handbook of Attic Red-figured Vases, 410, 29, late viθ c. B.C.); Ἀρισταίου (IG I Suppl. 491 35, line 3, 450 B.C.) and line 1 Ἀριστέας, line 4 Ἀριστέα; Ελέαρα (Corp. Vasor. Antiq.: Gr. Br. 8, III Ic, pl.91, 1 a-d (bis), late vth c. B.C.) for Ελείαρα; Πεδίαρχος (SEG XXV, 198, ivth c. B.C.) for Παιδιάρχος; Πέδαρχος (CIA III, Defix.tab.29.5, iv-iiith c. B.C.) for Παίδαιρις; Παλαιές (IG II 10089, Ist B.C. - Ist A.D.) for Παλαιών; Παναιές (IG II2 2297, mid-ist c. A.D.) for Παναιές; Ἐλαιον (IG II2 4786, Ist c. A.D.) for ἔλευ. For papyri occurrences, see e.g. Timotheos papyrus III, 79-80, ivth B.C.: παλαιοσίμη for παλαιοσίμη; Παλαιοσίμη for παλαιοσίμη; πολλοί for πολλοί; Πολλοί for πολλοί; Πολλοί for πολλοί; Πολλοί for πολλοί.

57 An archaic letter almost entirely substituted since vth c. B.C. by β or consonantant υ.

58 vi-vth c. B.C.: NaFπακτίων side by side with Ναπακτίων (IGA 321); Ἑβεθος (IGA 20, 101) instead of Ἑβεθος; Ἀριστεύντα (IGA 343, 4) instead of Ἀριστεύντα; Ἀφτόυ (IGA 409) instead of αὐτοῦ; Ἀριστεύντα (instead of Ἀριστεύντα); Ἐβεθος (IGA add. 20, 108 a, viθ c. B.C.) for Ἑβεθος; Ἐβεθος (instead of Ἐβεθος). The pronunciation of υ as ν is proved also by Εὐφαιοις (IGA
110, 2, early with cent. B.C.); Εὐανδρὸς side by side with Εὐβανδρὸς (C. Carapanos, Dodone, Pl. XXXIV, nr. 3, ivth cent. B.C.); iii ind cent. B.C.: Πυθομον (CIG 1563) for ζβδομον, and ιυδομικοῦτα (CIG 1845, 47) for ζβδομικοῦτα; iii–iind cent. B.C.: επίστεφαe (Wescher et Foucart, Inscriptions recueillées à Delphes, Paris 1863, no. 403, 5) instead of επίστευες.

59 I.e. Evenus (Εὐνοῦς) Corpus Inscriptionum Latinarum (= CIL) V, 1009; Evanthe (Εὐανθή, - έι) CIL IV, 6107; Evangelo (Εὐάγγελος) CIL V, 647; Evodiae (Εὐωδία) CIL III, 2435; Evodus (Εὐωδός) CIL II, 4970; Eulpistus (Εὐλπιστός) CIL II, 213; Evonetus (Εὐόνυτος) CIL II, 1648.

60 Evvenus (CIL II, 4534), Evvangelo (CIL V, 1200), Evvaristus (CIL V, 8110, 80a), Evvodia (CIL V, 2310), Evvantia (CIL V, 2413) Evvodo (CIL III, 4213), Evvagrio (CIL IV, 1198).

61 Similarly Aulus, Aurelius become Αὐλὸς (Avlos), Αὐρήλιος (Avrilios) rather than Ἄουλος(υ)ς (Aulo(υ)σ) Αουρήλιο(υ)ς [Aurelio(u)s], and Claudius, Claudia, and Augustus become Κλαυδίος, Κλαυδία and Αὐγουστος, not Κλαυδίου(υ)ς, Κλαυδία, Αὐγουστου(υ)ς, which were possible. Accordingly, in Modern Greek, too, the natural form would be Παυλίνα (i.e. Pavlina), though if one prefers the foreign sound one may write Παυλίνα (= Paulina).

62 How correct would one be if one were to determine the English sounds for th and w by means of the German pronunciation of these letters, and conversely to determine the German v, j and z by means of the pronunciation of the corresponding English letters?

63 On the other hand, the Orientals’ ignorance of historical orthography may sometimes more faithfully represent the actual sound than the documents of the more learned Athenians.

64 CIA II, 222, 5, 9, 322 B.C.

65 CIA I, 31, B, 9, 444 B.C.

66 CIA I, 31, A 7, 444 B.C.

67 See e.g. CIA IV, 27, a 5, 17, 445 B.C. Also SEG I, 3 (420 B.C.) ἐχ χαλκὸ (= ἐχ χαλκοῦ). Similarly SEG III, 44 (before 420 B.C.) line 5: τογ χρυσίου (change of ν to γ before χ) supports the pronunciation of γ = gh and χ = ch (as loch).

68 The pronunciation of words like συμφειδώ, ῥέχθην, ἤλεγχθην in the Erasmian manner, i.e. συμ- p+h+t+h+e-ίφω, ἤρ-k-h-t+h-ην, ἤλι-γ-κ-h-t+h-ην, are physiologically impossible in normal, esp. fast speech not only for Greek but for any language. Examples like uphill, hothouse and blockhead are no parallels, since the p -h, t -h and k- h belong to two different syllables and even words, and furthermore do not contain two consecutive aspirates.

69 Before B: ἐγ Βουκαντίου (CIA I, 40,35, 444 B.C.); ἐγ βολής (Ἀθήναιοι Vol. II. p. 484, 15, 300 B.C.) for ἐγ βολῆς; ἐγ βουλής (Bull. de Corres Hell., VIII. p. 197, line 67, 71, 83; p. 198, line 1.3, 329 B.C.) for ἐγ βουλῆς; ἐγ βεθείδεω (CIA II, 741, A, a, 22, 334 B.C.); Before Γ: ἐγ γυνος (CIA I, 381, vth cent. B.C.) for ἐγ γυνος, as well as ἐγ γυνεκτιόω (CIA III, 1640,2, Imperial times). Before Δ: ἐγ δύο (CIA IV, 1, a, 31, before 450 B.C.); ἐγ διδος (CIA IV, b, 53, a, 34, 418 B.C.); ἐγ διονυσίων (CIA II, 741, A, a, 7, 16, 334 B.C.); ἐγ δε (CIA II, 836, ab, 11, 320-295 B.C.) for ἐγ δε; ἐγ δελφίων (CIA II, 4, 27, b, 5, 26, 439 B.C.) for ἐγ δελφίων; ἐγ δῆμο (CIA II, 813, a, 3, before 400 B.C.). Before Λ: ἐγ λίνδου (CIA I, 239, ii, 59, 441 B.C.) for ἐγ λίνδου; ἐγ λέγειν (for ἐκλέγειν), ἐγ λέξθη (for ἐκλέξθη) etc. (CIA IV, b, 27, b, 8, 16, 439 B.C.); ἐγ λειπτόμων
Before M: ιύ Μακεδόνιας (CIA IV, b, 35, c, 440-432 B.C.). Before N: ιύ νήσον (CIA II, 62, 16, 357 B.C.). Lxx γλώσσα, for ιυθ. Cases is proved by the original Hebrew (Gen 11:19; 13:21; 10:7; 20:34; 4:1). Thus, in Εβπανδρός, as the form Εβπανδρός shows, the B cannot have been pronounced as English B, i.e. Evbandros, but as V: Evvandhros (dh = like th in then). Similar assimilation occurs also in Εββία, i.e. Evvía (Evvia), not Evboia.

E.g. Βάκχος > Bacchus, Βακχυλίδης > Bacchylides, Βάκτρα > Bactra and barbatus > βαρβάτος, Barcino (Barcelona) > Barcelonā, Burrus > Βούρρος, and Brutus > Βρούτος.

W. Dittenberger, Sylloge Inscriptionum Graecarum, Lipsiae 31915-24, 200, 12 (196 B.C.)

The voiced γ (gh) and δ (dh), sounded by Greeks, eases the pronunciation.

Cf. e.g. Blitschlag, Bisamstorchschnabelkraut, Durchschrift, Dirna[e]lschürze.

I.e. πρεκαμπτό (instead of πρακαμπτό), ζύμωνa (instead of ζυμῶν), ἀναβασμῶν (instead of ἀναβασμῶν), Πελαγικοῦ (instead of Πελαγικοῦ) (iv B.C., see M. Ph. Le Bas, et al., Voyage archéologique en Grèce et en Asie Mineure, II (Paris 1888), 122).

Aθήναιον, Vol. III, p. 480, line 20, 346 B.C.

CIA II, 325, a, 5, before 268 B.C.

E.g. IGA 112 (vth c. B.C. or earlier): ζί (= δί), ζικαια (= δικαια), ζίκα (= δεκα), ζί (= Διί), Ἑλλανδικάς (= Ἑλλανδικάς, note the absence of aspiration), ζαιμιουργία (= δαιμιουργία), ζίφιον (= δίφιον).

CIA I, 228, 5, b, 454 B.C.
It must not be overlooked that Greek polysyllabism is responsible for the relative poverty of Greek vocalism. To confine ourselves roughly to the last 2000 years, Greek has had five vowel sounds: a, e, i, o, u, clear and well-demarcated from one another. This contrasts sharply with other European languages, which tend to be more monosyllabic, with large concentrations of consonants, and which, therefore, are in greater need of vocalic differentiation, hence the great variation both in vowel-length and vowel-quality (as e.g. German ä, ü, ö; French é, è, u; Dutch aa, oo, oe, ou, eu, ui, ij; Swedish å, å, ö, y), which has no equivalence in Greek. The changes from Archaic Greek that were taking place in classical times, monophthongizing the diphthongs, levelling the i-class of vowels (ει, η, οι, υ), applying crasis, elision, etc. at the same time as they completed their alphabet, indicate that the Greeks were seeking to perfect their linguistic medium. It is significant that once these fundamental changes had been wrought, both alphabet and phonology have remained unchanged ever since. That it was possible for Homer to be recited contracted in classical times is proved by its being so recited in Modern Greece.

These marks apparently came into use after 403 B.C. (cf. Aristotle, *Poetica*, 26,3 and I. Bekker’s *Anecdota Graeca*, III, 780) and are found in e.g. Harris *Iliad*, 1st c. B.C.

Later, when it became customary to use the hand rather than the foot, the raising of the hand (ἀρχίς χειρός) came to symbolize the beat or ictus, while its lowering (θεσις χειρός) symbolized the dropping or absence of beat or ictus. This converse significance passed into modern terminology.

Homer, *Iliad*, VII, 118.

Homer, *Iliad*, XVI, 34 (γλαυκί, masc. presupposed); Plato, *Timaeus*, 68 c.

Homer, *Iliad*, XX, 74.

Plato, *Timaeus*, 68 b.

Homer, *Odyssey*, XIX, 432.

Homer, *Odyssey*, XVII, 225.

Aristotle, *Sophistic Elenchi*, 166b, 3-6; 177b, 35-178a.

Cratylus, 399 a-b.

*Sophistic Elenchi*, 177b 6 ἤ ἐπι παράσημα ποιούντες.

Varro, IV, 530:
Later this practice was discontinued. It was a common practice in ancient times, but it was eventually discontinued.

The addition of really! against the above contention misses the point. Even if really! were really sounded in the way claimed, it is an adverb expressing the astonishment. Is it really credible that Greeks would have pronounced all their circumflexed words as words expressing astonishment?

For Elis see SEG I, 94 (viith c. B.C.): υψελίδαι ανέθεν ες ηρακλεία.

E.g. ἀλιεύοι (CIA I, 433, 3, 460 B.C.; also 337, vith c. B.C.) instead of ἀλιεύοι.

E.g. IG I² 372 (409/8 B.C.) lines 118 ἰέκιπδος; 162 ἰέκιπδος; 226 ἰέκιπος.

We thus get such monstrances as: a col. I: 4 κατιστάσιν (for κατιστασίαν); 5, 6, etc. ἰδραν (for ἱδραν); 9, 12, 13, etc. οἰκοκύμι (for οἰκοκύμιτοι); 14 ηρικώματα (for ηρικώματα); 14, etc. ην (for ἓν); 17, 19, 20, etc. ηοίκων (for οἰκών); 22 ἑκέντο (for ἑκέντα); 24, 27, 28 etc. οἰκοκύμι (for οἰκοκύμι); 29, 35 περγαμομείνης (for ἱργαμομείνης); 37 πορφυρόν (for ὀρφυρόν); 44 πεπί (for ἐπί); 45 πεντός (for ἐντός); c col. I: 1 ἰέκιπδον (for ἰέκιπδον); 5 ποσιθοβαφθαν (for ὀποσιθοβαφθαν); 7 ἄρμα (for ἄρμα); 9 ἰέκιπτα (for ἰέκιπτα); 13 πεπικρούσα (for ἰεπικρούσα); 15 ἅλακακής (for ἀλακακής); 18 πανδρα (for ἀνδρα); 19 ἰάττικότα (for ἰάττικότα); 21 ἱ (for ἰ); 31 ἵς (for ἵς); 36 ἱπό (for ἱπό); 49 ἐκίξος (for Εὐκίξος); c col. II: 2, 5 ἰείς (for ἰείς); 13 πεπί (for ἐπί); 13 πεπιστουλίω (for ἰεπιστουλίω); 14 πεντός (for ἐντός); 17 προσαπεδοῦν (for προσαπεδοῦν); 27 ἰερά (for ἰερά); 32 ηενεγόμενα (for ἔνεγόμενα); 52, 60 ἰεύμενοι (for Εὐκίξας); 72 ἰεύμενης (for Εὐκίξας). See also IG I² 374 (408/7 B.C.): col. IX, 280 ἰενεγόμενα; 282 ἰείς; 285 ἰοκικοῦτος, etc.

The confusion of aspiration may be illustrated by the following examples: IG I² 16 (465 B.C.) line 6 ὁτί instead of ὁτί and line 24 ὅτι instead of ὅτι; IG I² 17 (450 B.C.) ὀρκάσα (for ὀρκόκασα), 4 ὅπος (for ήπος) and IG I² 19 (453 B.C.) ἤρκον, ἦν, ἦπος; IG I² 14-15 (440/39 B.C. = SEG X, 17 (450 B.C.) ὃς (for ής), αἰρεθέντες (for αἰρεθέντες), ὅπος (for ἦπος), ἱεκαστος (for ἱεκαστος), εὐρός (for ήμερος), ὅτι (for ἵτι); SEG X, 14 (450 B.C.) ἵχον (for ἵχων); IG I² 41 (446/5 B.C.) ἐστιάσας and ἐστιασάς, ἦν δὲ τοις ἀγεί, δέκαθον ἵχος (= ἀλός?); SEG X, 35 (446/5 B.C.) ὀρκόσα (for ὀρκόσα), ὀρθότα (for ὀρθοτά) and ὅπος (for ἦπος); ἦςαμπται (CIA I, 234, 26, 444 B.C.) and ἦσαμπται (CIA I, 229, 230; 231; 238; 242-244); ἦσαμπται (CIA I, 230, frg. 25, 6, 450 B.C. and ἦσαμπται (CIA I, 226, 9, 454 B.C.; 264, 20, 420 B.C.); ἦσαμπται (CIA I, 167, 9, 412 B.C.; ) and ἦσαμπται (CIA I, 322, a, 97, 409 B.C.; 228, 17, 452 B.C.); ἦσαμπται (CIA I, 242, 20, 438 B.C.;) ἦσαμπται (CIA I, 226, 5 (454 B.C.) as well as ἦσαμπται (CIA I, 226, 16, 452 B.C.); ἦσαμπται (CIA I, 320, 5, 450 B.C.; 232, 6, 448 B.C.; 233, 5, b, 447 B.C. etc.) and ἦσαμπται (CIA I, 226, 6, b, 454 B.C.; 240,7, 440 B.C.; 238, 11 (Ἀριστέης, 442 B.C.;) ἦσαμπται (CIA I, 240, 49, 440 B.C.) and ἦσαμπται (CIA I, 257, 53, 427/425 B.C.) and ἦσαμπται (CIA I, 442, 8, 432 B.C.) instead of ἐλπίδα; ἦμεξιατρότη (W. Klein, Die griechische Vasen mit Meistersignaturen, Wien 1887, 33, vii-vith c. B.C.) and ἦιεμονῖος (CIA IV, b, 373, 202, vith c. B.C.) and ἦκεί (CIA IV, 373, b, beginning of vith c. B.C.) instead of ἦκεί; καθεί (i.e. aspirate: CIA I, 479, 3, c. 500 B.C.) instead of καθεί (CIA IV, 170, 7, 422 B.C.; 166, 6, 413 B.C.) instead of ἦκείως; SEG X, 49 (432/1 B.C.) ἦσαμπται for ἦσαμπται; SEG X, 63 (430 B.C.) ἦσαμπται for ἦσαμπται; SEG X, 67, 13 (428/7 B.C.) ἦσαμπται instead of ἦσαμπται.

E.g. προσηπήκετο (CIA I, 40, 15, 428/243 B.C.) and προσήκειν (same inscription, line 45); τριτημποδίου (CIA I, 322, a, 12, 409 B.C.) and τριτημποδία (CIA I, 321, 15, before 409 B.C.).
See e.g. ληφων (Ἐφημ. Ἀρχ. 1886, p. 87, vii-vith c. B.C.); ζησι in CIA II, 1066 (bis, ivth c. B.C.; ληφων λίθου (= λαβων λίθου), IGA 360, vth c. B.C.?; κηρ(η) (CIA IV, b, 373, n. 97, b, vii-vith c. B.C.); μηγαλου (CIA IV, b, 373, 208, vith c. B.C.).

Plato never mentions aspiration in his Cratylus, although he ought to have had occasion to do so, while according to Aristotle the only difference between ω and ω was one of stress (the acute), Sophistici elenchi, 177b, 35-178a, 4; see also 166b, 3-6.

This recognition has led to a nonchalant attitude with regards to the pronunciation of Greek by teachers of Greek. This may be exemplified by a conversation among teachers of Greek (i.e. classical scholars) that I happened to witness one time. One of them, new in the circle, was asking the rest whether he should pronounce the letter Θ as T or as English th (in "thin"). Several of the group gave their opinion to the effect that it did not really matter how the letter was pronounced! To underline the unimportance of the issue one of them went on to say that since he was unable to pronounce the Greek sound Χ (in e.g. the word χάρις) as ch sounded like German "Bach", he pronounced it like English sh (i.e. sharis)!

The complaint that Modern Greek has too many i-sounds —i.e. six (seven with η) in all—is totally unfounded. The i-sounds occurring in English have been computed to be about twenty-eight. A check of the first 100 vowels occurring in Matthew (ch. 2), John, Romans, Acts, and Revelation gives the following sounds occurring in English have been computed to be about Greek 19.2; English 32.4; German 19.6; French 13.6; Italian 20.2; and Dutch 21.8.

E.g. ἀκμῆνος (fasting from food) ἀκμήνος (full-grown); ἀκράτως (without being mixed) ἀκρατῶς (in uncontrolled manner); βάτος (bramble-bush) and βάτος (verbal adjective: "that can be passed"); ἔρειν (pres. inf.) ἔρειν (fut. inf.); δημός (people) δήμος (fat); διάφισσω (lift up) διαφίσα (divide); δοκίμω (δοκιμίων, opinion) δοκίς (beam); ἱδρανεῖν (seat) ἱδρανέω (neut. adj.: steady); ἐμί (go) ἐμί (I am); ἐλευσίς (coming) ἐλευσίς (Eleusis); ζητῶ (Pres. ind. 3rd pers. sing of ζάω) ζητάω (I seek); θεά (view) θεά (goddess); θερμή (warmth, heat) θερμή (adj.: warm); ἱερεία (priestess) ἱερεία (festival, sacrifice); ἱός (Pres. subj. of ἱμεῖν) ἱό (exclamation: alas!); κοίνος (dust) κοινός (nit); νόμος (law) νόμος (pasture, district); οἶνος (wine) οἶνος (= οἰνί: the ace on the dice); πότε (when?) and ποτέ (ever); τίς, τίνος, τίνε, τίνα (interrogative pronouns) τίς, τίνος, τίνε, τίνα (indefinite pronouns), as well as the verbs with Attic future, e.g. αἰσχύνω (present ind.) and αἰσχύνω (future ind.); κρίνω (pres. ind.) and κρίνω (fut. ind.); μένω (pres. ind.) and μενώ (fut. ind.), νέμω (pres. ind.) and νεμέω (fut. ind.).


The same principle should apply to the different dialects, Attic, Boeotian, Ionic, Aeolic, Doric, Thessalic, etc.

Although on p. 142 he deplores the Henninian pronunciation practised in England as a hinder to e.g. learning Modern Greek, he nowhere argues for a change.

The relevance of pronunciation for text-critical work is exemplified by the author’s recently published study, C. C. Caragounis, ""'To Boast' or "'To Be Burned"? The Crux of 1 Cor 13:3" (SEΑ 60 (1995) 115-27, Fs. for R. Kieffer, Eds. B. Holmberg and T. Fornberg) on a hitherto unsolved problem.