

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 ousting 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 *Dhimotiki* ¹. 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 ἑπτὰ (*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 ἑκκλησία with e (i.e. *ecclesia*) rather than with i (i.e. *ekklisia.*), as the η is pronounced by the Greeks ⁴. 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) ⁵.

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 ⁶ (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 ⁷— 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 ⁸, there was

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now 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 ⁹ 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 ¹⁰. Having established it, its advocates proceeded to produce "scientific proofs" for its correctness.

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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 ¹¹. 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 ¹² —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

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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 , \omicron , 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 η , 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):

<i>Letters</i>	<i>Greek pronunciation</i>	<i>Erasmian pronunciation</i>
β	= v	= b
γ	= gh (as Eng. "yet" with and without the i-sound heard between the y and the e.)	= g
δ	= dh (as th in Eng. "then")	= d
ζ	= z (as z in Eng. "zebra")	= dz or zd

θ	= <i>th</i> (as <i>th</i> in Eng. "thin")	= <i>t</i>
χ	= <i>ch</i> (as <i>ch</i> in Germ. "ich" and in Scot. "loch")	= <i>k</i>
η	= <i>i</i>	= <i>e</i> (as in Germ. or Swed. <i>ä</i>)
υ	= <i>i</i>	= <i>u</i> or <i>y</i>
ω	= <i>o</i> (as in Eng. "for")	= <i>o</i> (long)
αι	= <i>e</i> (as in Germ. or Swed. <i>ä</i>)	= <i>ai</i> (as two sounds)
ει	= <i>i</i>	= <i>ei</i> (as two sounds)
οι	= <i>i</i>	= <i>oi</i> (as two sounds)
υι	= <i>i</i>	= <i>ui</i> or <i>yi</i> (as two sounds)
αυ	= <i>av</i> (before vowel or β, γ, δ, ζ λ, μ, ν, ρ) or <i>af</i> (before all other consonants)	= <i>au</i> (a two sounds)
ευ	= <i>ev</i> or <i>ef</i> (as above)	= <i>eu</i> (as two sounds)
ηυ	= <i>iv</i> or <i>if</i> (as above)	= <i>eu</i> (long) (Swed. <i>äu</i>) (as two sounds)
ϵ	= no aspiration	= aspiration (= <i>h</i>)
◊'◊◊ ~	= accents heeded	= accents not heeded

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 [13](#).

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 O 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 X was represented by the digraph KH; the monograph Ξ ¹⁶ was represented by the digraph ΚΣ (later ΧΣ) ¹⁷; the

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monograph Ψ ¹⁸ was represented by the digraph ΠΣ (later ΦΣ) ¹⁹, and the monograph Θ was apparently represented by the digraph TH. These alternative spellings continue to the IIIrd century B.C. and later.

The letter H 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 H originally had two functions: one, to mark aspiration and two, as the second element in the digraphs ΠΗ, KH, and TH. In Ionia, where aspiration had ceased by the VII century B.C., they made the sign H into a letter, the long sound EE (as French *tête*) ²⁰. Thus, until the Vth century B.C. Attic had only five vowels: α, ε, ι, ο, υ for the five basic sounds of the Greek language ever since: *a, e, i, o, u*. The signs of H 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 H, while O occurs as OY and later as Ω ²³. After mid-Vth century B.C. when H and Ω were taken as real letters, there is constant confusion of E with H 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 H, of H with E, of EI with H, of EI with HI, of O with OY ²⁴ (but hardly

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ever of OY with O or Ω ²⁵), of O with Ω, and of OI (i.e. *i-subscriptum*) with ΩI.

Following 403 B.C. H 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 ²⁶. 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 ²⁷. The pronunciation of diphthongs must take account of the accent. The basic rule of *trisyllabotomy* (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: $\acute{\alpha}\iota$ — $\acute{\alpha}\acute{\iota}$, $\acute{\epsilon}\iota$ — $\acute{\epsilon}\acute{\iota}$, $\acute{\omicron}\iota$ — $\acute{\omicron}\acute{\iota}$, $\acute{\omicron}\upsilon$ — $\acute{\omicron}\acute{\upsilon}$, 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 ΥI] 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 ²⁸. 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: $\acute{\alpha}^u$, $\acute{\epsilon}^u$ becoming \acute{a}^u , \acute{e}^u gradually led to the consonatization of the *u* 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 ²⁹. Thus, in

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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 ³⁰. (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 ³¹. But to be up to the task it is not enough to merely quote second-hand a

few Modern Greek examples ³². 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 ³³.

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 inscripational 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 ι. 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 ³⁴.

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. ³⁵. 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 *ü*, 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 ³⁶. This is corroborated further by the fact that Y interchanges with H ³⁷ and OI (which also had begun acquiring the sound of I) already by the IVth c. B.C. ³⁸. Y interchanges also with EI by the Vth c. B.C. ³⁹. 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 ⁴⁰.

4. YI = I. The I of this diphthong very early ⁴¹ 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. ⁴²

5. OI = I. OI is confused with I at the latest by 329 B.C. ⁴³. 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) ⁴⁴, since the V-IVth c. B.C. with Y (see above) and at the latest since 168 B.C. also with H ⁴⁵, 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 Εὐαοῖοι (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-ü-ü' and 'Eva-í-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). ⁴⁶ 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 [47](#). H interchanges even with Y, which was also tending in the

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direction of I [48](#). 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. [49](#)

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 Ist century B.C. [50](#). 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 Αιγῆς, Ερεχθῆς and Οἰνῆς, in which HI preponderates around 400 B.C., while EI has completely eclipsed HI by 300 B.C.

8. **O, OY and Ω**. The letter O interchanges with OY very frequently from the VIth century to the IIIrd century B.C. [51](#). However, it is

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interesting to note that OY, pronounced distinctly as U, is hardly ever written instead of O or Ω. This shows that there was little distinction between O and Ω [52](#), but a clear distinction between O and Ω on the one hand, and OY on the other. From the IIIrd c. B.C. on O and Ω interchange very frequently, which implies that they had become equivalent.

9. **OI and ΩI**. OI and ΩI (i.e. the older and new spellings with ι-*subscriptum*) interchange quite often [53](#).

10. **AI = E**. The diphthong AI (AE) interchanges with E already before 400 B.C. in Boeotia (where the Ionic H had taken the place of AI) revealing the fact that AI was pronounced monophthongally and as E [54](#). The pronunciation of AI as E in Athens is proved from the addition of ι to the diphthong [55](#), as well as from the confusion of αι with ε [56](#).

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11. **AY, EY and HY**. The diphtongs AY, EY and HY retain the pronunciation of both letters, but already by the VIth c. B.C. the Y 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 ⁵⁷, which corresponded to the Phoenician letter *waw*, and had the sound of *v*) in place of *v* ⁵⁸. It is further confirmed by the transliteration of these diphthongs into Latin, which use e.g. *ev* for *ευ* ⁵⁹. That this *v* cannot be mistaken for *u* (i.e. *eu*) is rendered beyond all possible doubt by the fact that these words are also spelled with a double *vv*. ⁶⁰. Accordingly *Lavinia* becomes *Λαῦνα* (= *Lavna*) (Dionysius Halic. I, 70, 2) not *Λάουνα*, which should have been the case if the sound desired was *άου*, just as it happens with *auctoritas* = *ἀουκτώριτας* (Dio Cassius, 55, 3. 4) This is also confirmed by the name *Paulina*, which is transcribed as *Παυλίνα* (i.e. *Pavlina*), though when the Latin sound is desired the word becomes *Παουλίνα* (CIG 6665). These examples confirm the pronunciation of *Παῦλος* as *Pavlos*, not *Paoulo(u)s* ⁶¹. 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 *Lord Byron* is not *Λόρντ Μπάιρον*, but *Λόρδος Βύρων*, 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, *Wilson* is *Ούίλσον*, but *Watergate*, and *Woodhouse* become *Γουωτεργκαίητ* and *Γούντχους*.

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 ⁶².

Today in Greece the confusion of the various representations of the *l*-sound, i.e. *ι*, *η*, *υ*, *ει*, *υι*, *οι*, is not infrequent among uneducated people. Thus, for example, writing a word with *η* or *οι* instead of the correct *ι* 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. H). *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

tongues, cannot methodologically be relied upon as guides for the correct pronunciation of the Greek language ⁶³.

3. The Pronunciation of the Consonants

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

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the earlier digraphs TH, PH, and KH. Accordingly, Latin TH, PH and CH 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 F 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 ΠH (i.e. Π with aspiration), it ought to have been confused with the Π. Finally, the fact that the preposition ἐκ does not change before κ, τ, π, but before θ, φ, χ it actually often becomes ἐχ (e.g. ἐχ Θετταλίας ⁶⁴, ἐχ θητῶν ⁶⁵, ἐχ φυλῆς ⁶⁶, ἐχ Χαλκίδος) ⁶⁷, which would be impossible to pronounce as ek+h-K+h-αλκίδος, etc. (i.e. aspirating the Χ 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 *v*, *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 = *y* 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: ἄγγελος (= agelos) and ἔγκλισις (= eglisis). The

pronunciation of Β, Γ, Δ 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 ⁶⁹. This circumstance clearly supports the sound *gh* rather than that of *g*.

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2. The pronunciation of β as *v* is, in addition to the above, borne out also by the confusion of this letter with the υ of the diphthongs αυ, ευ, ηυ, which have already been treated (above) ⁷⁰. 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, ἰεχοβά ⁷¹. Finally the Latin U or V is often transliterated with the β in Greek, e.g. Βεργίλιος (Vergilius), Βαλέριος (Valerius), Βατίνιος (Vatinius), Βενύσια (Venusia), Βεντίδιος (Ventidius), Βαλεντία (Valentia), Βέσβιος (Vesuvius), Βιέννα (Vienna), Βινίκιος (Vinicius), and Βονώνης (Vonones). The transliteration of Greek Β with Latin B and conversely is due to the historical spelling ⁷². Moreover, the frequent transliteration of Latin U (V) with ου [e.g. Ούεργίλιος (Vergilius), Ούεσπασσιανός (Vespasianus), Ουίτέλλιος (Vitellius), Ουάρρων (Varro)], indicates that when Latin U (V) is rendered by Greek Β the sound of the latter is not *b*, but *v*, i.e. not Bergilios, but Verghilios, hence it can also be spelled ΟUerghílios.

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3. With regards to Δ, in addition to what has been said above, it may be pointed out that μηθείς, μηθέν, μηθενός, ούθείς, ούθέν, ούθενός, etc. occur from 378 B.C. side by side with the earlier μηδείς, μηδέν, ούδείς, ούδέν, 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, όβελός – όδελός, which again precludes the sound of *d*. Also βδομος 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 ⁷³ as *ekgdemia* (i.e. as three consecutive stops *k-g-d*) is almost impossible ⁷⁴. 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 ⁷⁵. Greek pronunciation cannot be determined by what is possible or acceptable in other languages.

Finally, the letter Z, as its frequent replacing of Σ before Β, Γ, and Δ etc. shows ⁷⁶, 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 Σεῦς (= Ζεῦς, 340 B.C.); Βυζάντιοι ⁷⁷ instead of Βυζάντιοι; ἐπεψήφισεν and συναγωνισζόμενος instead of ἐπεψήφισεν and συναγωνιζόμενος ⁷⁸. In Elis Δ was often substituted by Ζ ⁷⁹. That this tendency occurred at Athens as well may be inferred from Plato, *Cratylus*, 418: "νῦν δὲ ἀντὶ ... τοῦ ... δέλτα ζῆτα (μεταστρέφουσιν)". That this pronunciation of ζ as z was classical is shown by Ἀζειοί, Ἀζειῆς ⁸⁰, and Ἀζζειοί ⁸¹, as well as by Βυζάντιοι ⁸² and Βυζζάντιοι ⁸³. 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)zií) and Bü(z)zantiü (later By(z)zántii) respectively ⁸⁴.

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: αἱ δέκα προσωδίαι. These were of four types: stops, quantity symbols, accents and breathings.

1. *Stops*. The stops were the *comma* (ὑποστιγμή), the *period* (τελεία) and the *colon* (μέση στιγμή). (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 ῥ (short) ⁸⁵. 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 (ἄρσις τοῦ ποδός), which symbolized the relaxation of accent, and therefore the shorter syllable ⁸⁶. 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* (ἄρσει βραχεῖα). 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* (φύσει μακράι); consequently the syllables containing any of the other vowels, depending on their position in the metrical foot, were regarded as either μακράι, βραχεῖαι or δίχρονοι, 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, ΟΥ and Ω — the κατ' ἐξοχήν "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 Γλαῦκος ⁸⁷ and γλαυκός ⁸⁸, Ξάνθος ⁸⁹ and ξανθός ⁹⁰, ὄρος ⁹¹ and ὀρός ⁹², οὐ and οὔ ⁹³; Plato spoke of Δίφιλος (< Διὶ φίλος) in which the original φί had lost its ὄξεια (acute) and in the compound form received a βαρεῖα (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* (ὄξεια) and was indicated by

the mark (¨), while all other syllables received the mark of the *grave* (`) (βαρεῖα): e.g. ΚΑΤΑΞΙΩΘΕΝΤΕΣ ⁹⁷. The third mark to come into being was the *circumflex* (^) (i.e. περισπωμένη) 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. ΝΟΪΣ > ΝΟΟΥΣ. However, the form of the circumflex only indicated that it was the result of the contraction of two vowels, one ὀξυτόμενον the other βαρυνόμενον, 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 ἐστὶν with ἀληθῆς ἐστὶν.

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 trisyllabotomy. 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-schri-ft-en*), 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.:

καταγινωσκομένους, γραμματοδιδάσκαλος, χοροδιδασκάλους, πιπράσκεσθαι,

ἑβδομηκοντακαίεκατονταπλασίων (Proclus, *Hypo-typosis* 4, 104)

ἑννεακαίεικοσικαίεπτακοσιοπλασιάκῆς (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 προσωδίαι known in early times. And (7) the principle of trisyllabotomy 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 *prosodiai* were according to tradition, created by the Alexandrian Grammarian, Aristophanes of Byzantium (IIIrd 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 VIIth c. A.D. In the XIth 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

ἱερός (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 ρ, λ, γ, 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 language¹⁰⁶ —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

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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 I. The Y was thinned down (at first perhaps to French u and finally) to I, the *u*-sound being rendered by ου. 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 pronunciation¹⁰⁷. 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-sounds¹⁰⁸, 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 H from I, they have confused it with E. They also tend to confuse X with K and Θ with T. 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 [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 [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 [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* ... ἑπτὰ = *eftá*", 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 pronuntiatione 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 pronuntiatione fuerit impulsus, paucis cognitum arbitror. Itaque visum hâc de adjicere, quod in schedâ quadam habeo, scriptâ olim manu Henrici Coracopetræi, viri egregiè docti, doctisque perfamiliaris. Ea ita habet: 'Audiui M. Rutgerum Reschium, professorem Linguæ Græcæ in Collegio Buslidiano apud Lovanienses, meum piæ memoriæ præceptorem, narrantem, se habitâsse in Liliensi pædagogio unâ cum Erasmo, plus minus biennio eo superius, se inferius cubiculum obtinente: Henricum autem Glareanum Parisiis Lovanium venisse, atque ab Erasmo in collegium vocatum fuisse ad prandium: quò cùm venisset, quid novi adferret interrogatum, dixisse (quod in itinere commentus erat, quòd sciret Erasmum plus satis rerum novarum studiosum, ac mirè credulum) quosdam in Græciâ natos Lutetiam venisse, viros ad miraculum doctos; qui longè aliam Græci sermonis pronuntiationem usurparent, quàm quæ vulgò in hisce partibus recepta esset. Eos nempe sonare pro B vita, BETA: pro H ita, ETA: pro αΙ æ, AI: pro OI I, OI: & sic in cæteris. Quo audito, Erasmum paulò pòst conscripsisse Dialogum de rectâ Latini Græcique sermonis pronuntiatione, ut videretur hujus rei ipse inventor, & obtulisse Petro Alostensi, typographo, imprimendum: qui cùm, fortè aliis occupatus, renueret; aut certè se tam citò excudere, quàm ipse volebat, non posse diceret; misisse libellum Basileam ad Frobenium, a quo mox impressus in lucem prodiit. Verùm Erasmum, cognitâ fraude, nunquam eâ pronuntiandi ratione postea usum; nec amicis, quibuscum familiariter vivebat, ut eam observarent, præcepisse. In ejus rei fidem exhibuit M. Rutgerus ipsius Erasmi manuscriptam in gratiam Damiani à Goes Hispani pronuntiationis formulam (cujus exemplar adhuc apud me est) in nullo diversam ab eâ, quâ 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).

⁷ E. Hirsch, *Validity in Interpretation* (New Haven: Yale Univ. Press, 1967) 5.

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 Boccaccio; *Leontios Pilatos* became professor of Greek at Florence University in 1360. His translation of

Homer was used by Petrarch and Boccaccio 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 Galesiotis*; *Andronikos Kallistos* taught in Padua, Bologna, Rome, Florence (1471-1475), and presumably in London, where he died; *Georgios Hermonymos* 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 Egnazio 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 τῶν περὶ τῆς ἑλληνικῆς προφορᾶς Ἐρασμικῶν ἀποδείξεων, Ἐν Ἀθήναις, 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 *nichtige 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 5th and 4th 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 ("Verhuzung") 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, *als ob eines Tages die alten Hellenen auferstehen und uns über die Verhuzung 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 Aristides: μεγακλεσ ηπιποκρατος (for Μεγακλῆς Ἰπποκράτους) and αριστειδεσ λυσιμαχο (for Ἀριστείδης Λυσιμάχου) **482 B.C.**, see *Ἱστορία τοῦ Ἑλληνικοῦ Ἔθνους*, Vol. II, Ἀθῆναι 1971, p. 311, and *CIA* IV, 27, a 75, **445 B.C.**: εφεσιν εναι αθναζε εσ τευ ηελιαιαν (= ἔφεσιν εἶναι Ἀθῆναζε ἐς τὴν ἑλιαίαν).

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

¹⁶ Among the earliest examples of Ξ are: *CIA* I, 440, before **444 B.C.**: ξυμμαχος, ξανθιας; *CIA* I, 299, before **444 B.C.**: χαριξενο (= Χαριξένου).

¹⁷ *CIA* IV, b,1, a,1, **570-560 B.C.**: εδοχσεν τει βολει και τοι δεμοι (= ἔδοξεν τῇ βουλῇ καὶ τῶ δήμῳ). In citing the inscriptions ordinary lower case letters will be used, capitals will be reserved for special emphasis.

¹⁸ Among the earliest examples of Ψ, are: *CIA* I, 13,4, before **444 B.C.**: ψέφισμ[α] (= ψήφισμα) and *ibid.* line 7: ἀνάγραψαν.

¹⁹ *SEG* XXV, 59, **520 B.C.**: Ὀφσιος (= Ὀψιος) *CIA* I, 32, A, 4, **435 B.C.**: ἐφσέφιστο (= ἐψήφιστο).

²⁰ Among the earliest examples of h as a letter before its official adoption in 403 B.C., are: στρατηγούς (*CIA* IV, 27, a, 77, **445 B.C.**); ἄρρητοι (*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.**).

²¹ As late as c. **340 B.C.** the letters reckoned as vowels are five: α, ε, ι, ο, υ, cf. *CIA* IV, 4321, 3f.: τὸ δὲ πέμπτον (i.e. the last) τῶν φωνηέντων Υ. This quite clearly excludes H and Ω from the list. These two letters are excluded even in an Ionic ABC of the **vth** c. **B.C.**

²² Thus, εἶμι occurs side by side with the infinitive μελεδαίνεν (= μελεδαίνειν) (*CIG* I, 8, B, c. **570 B.C.**).

²³ Cf. e.g. *CIA* IV, 27, a 75, **445 B.C.**: ἔφεισιν εἶναι ἀθέναζε ἐς τὴν ηελιαίαν (= ἔφεισιν εἶναι Ἀθήναζε ἐς τὴν ἑλιαίαν); ἔδοχε τῆι βολῆι καὶ τῶι δέμοι (*IGA* III, 3, 8, **458 B.C.**; *CIA* I, 32, **435 B.C.**) for ἔδοξε τῆ βουλήι καὶ τῶ δήμῳ; ἔδοχεν τῶι δέμοι (*IGA* I², 1,1 (**446 B.C.**); *SEG* I, 4 (**418 B.C.**) στρώματα (for στρώματα).

²⁴ Ο occurs as ΟΥ in *SEG* XII, 100 (**377/6 B.C.**) Μονιχιῶνος ... ἰσταμένο (no aspiration!); *SEG* XII, 87,19 (**336 B.C.**) βολεύηι, cf. line 25: βουλευτήριον.

²⁵ Ω occurs instead of Ο (= ου) a few times, e.g. *CIA* I, 358, before **444 B.C.**: λευκολοφίδω (= Λευκολοφίδου) and *CIA* I, 93, a, 8, c. **420 B.C.**: θεΩ (= θεοῦ).

²⁶ The sign H 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 ηορος (= ὄρος) (*CIA* II, 1063; 1066; 1074; 1075, all early **ivth** c. **B.C.**) and ορος (= ὄρος) (*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 Euclides. See the discussion under "Breathings", below.

²⁷ See the data bank *Thesaurus Linguae Graecae*: Delphi FD III:2 137, 2 ἐ[ρι]βρόμουου, 3 Φοῖοιβον, 8 and 21 μαντεῖιον, 11 βωμοῖοισιν, 12 ὁμοῦου, 14 αειόλοιοις, 20 θνατοῖοις, 21 εἶειλες, ἐφρούουρει, 138,15 ἀδειειαν, 22 ἔχειεις).

²⁸ Phonetically the various vowel-sounds are formed in the front (*i*), middle (*a*, *e*), and back (*o*, *u*) of the mouth cavity. As for the position of the lips, they are almost closed when sounding *i* and *u*, 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, H, Y, YI, OI to I 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 I, 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, EI, OI 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.

²⁹ Cf. W. S. Allen, *Vox Graeca. A Guide to the Pronunciation of Classical Greek*, Cambridge 1968. The same may be said of E. H. Sturtevant, *The Pronunciation of Greek and Latin*, Philadelphia 1940².

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 βρεκεκεκεξ 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 αὐ αὐ. In Mod. Greek it is ἀβ ἀβ or more often γαῦ, γαῦ or γάβ γάβ (and the verb is γαυγίζω). 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 νιάου, 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 ὤρῳομαι with the roaring of lions or wolves. This implies that Cratinus's βῆ βῆ (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 π is often changed to μ and the sound becomes something between *tom patéra* and *to mpatéra*. In Greek generally μ+π 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+π 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 μεε. Actually the form used in Greece is μπέ, or, to reproduce more faithfully the sound, it becomes μπέεεε. 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.

³³ For a fairly insightful evaluation of the relation of Modern Greek to ancient Greek by a non-Greek, see R. Browning, *Medieval and Modern Greek*, Cambridge 1983² rp. 1989.

³⁴ See e.g.: Πισί[τ]ρατος (*Hesperia* Suppl. 8,405, viith c.-550 B.C.) for Πεισίστρατος; Α[μ]ινίας (B. Graef-E. Langlotz, *Die antiken Vasen von der Akropolis zu Athen*, I-II, Berlin 1925-33, Vol. II, 1324, early vith c. B.C.) for Αμεινίας; Χίρων (*SEG XXXV*, 37, 580-70 B.C.) for Χείρων; Κλειτίας (J.C. Hoppin, *A Handbook of Attic-Red-figured Vases*, I-II, Cambridge 1919, 150,2, c. 570 B.C.) for Κλειτίας; Κλιτομένες (J. D. Beazley, *Attic Black-figured Vase-painters*, Oxford, 1956, 167, 550-25 B.C.) for Κλειτομένες; Κλίταρχος (Beazley, *Attic Black-figured Vase-painters*, 174,1, 550-25 B.C.) for Κλείταρχος; Θάλια (*Corpus Vasorum Antiquorum* : Deutschland, 21, pl. 56, 4, 9-10, c. 510 B.C.) for Θάλεια; vith cent. B.C.: Ποτειδάν Ποτεδάν Ποτιδάν, *IGA* 20: 2, 6-9, 12, 16, 19, 21, 23, 24-32; 68, 74-84, 110-114; Αφιτρέταν, Αφιτρίτα, Ανφιτρίτα *IGA* 20, 2, 3, 71-73, 112, 114; Ανφιτρίτε *SEG XXXV*, 37, 580-70 B.C.; Τείμαρχος (*IGA* 372, 359) instead of Τιμαρχος; cf. Homer, *Iliad*, II, 506 and *Odyssey*, VI, 266 Ποσιδήιον derived from Ποσειδών (*SEG XXXV*, 37, 580-70 B.C.); also the month Ποσιδήϊών (Anacreon Lyr. 6, 540 B.C.), later Ποσιδεών or Ποσειδεών; Χίρων (*CIG* IV, 8185 d) instead of Χείρων. vth cent. B.C.: χειλί[ω]ν (*IGA* 381 c 12, b 15; d 12) instead of χιλίων; Διοτίμου (Αθήναιον Ε', 419, 10, 1) instead of Διότιμος (*CIA* 179 and 362 both vth c. B.C.; *ib.* 433, 460 B.C.; *IGA* 362, vth c. B.C.); ἀπόκτινεν (*CIA* I, 9, 28) instead of ἀπόκτεινεν; Σταγιρίται (*CIA* I, 230, 450 B.C.; 231, 449 B.C.; 233, 447, B.C.) instead of Σταγειρίται; again Σταγιρίται (*CIA* I, 234, 447 B.C.; 339, 441 B.C.); *SEG* V, 35, i, 15 (420/17 B.C.); Χαλκιᾶται (*SEG* V, 6,i,29, 449/8 B.C.; *CIA* I, 229, 451 B.C.; 263, vth c. B.C.) instead of Χαλκειᾶται (230, 450 B.C.; 235, 445 B.C.; 237, 443 B.C.; 239, 439 B.C.; 259, 427 B.C.; 261, 427 B.C.) or Χαλκεᾶται (256, 428 B.C.); Επαφρόδειτος (*CIA* II, 482, 108, 392 B.C.) instead of Επαφρόδιτος; Αφροδείσιος (*CIA* II 482, 114) and Αφροδίσιος (in *ib.* line 110, 392 B.C.); διερίσματα (*CIA* II, 678 b, 47, 378-367 B.C.) along with διερείσματα (*CIA* II, 651, 4, same date); ivth c. B.C. Μιλιχίω along with Μειλιχίω (*Bulletin de Corr. Hell.* VII, 507; 509); ὀρίχαλκος (*CIA* II, 689) for ὀρείχαλκος (*CIA* II, 751 b 21; 766, 24 f.); ἄρχι (*SEG XXIX*, 220, 350 B.C.) for ἄρχει?; ἔχισ (*SEG XXX*, 175, 350-300 B.C.) for ἔχεις; Ποσιδεών (*CIA* II, 191, b,5, 320/19 B.C.; *SEG XXV*, 137, ivth c. B.C., also *SEG XXVIII*, 60,7, 270/69 B.C.); Αριστίδου (*Bull. de Corr. Hell.* XII, 254, 14, 332 B.C.) instead of Αριστείδου; Φιδίας (*CIA* III, Defixionum tabellae 29, 4 and 11, IV-iii c. B.C.) for Φειδίας; ἐλλέπει (*CIA* I, 835, 66, 332 B.C.) side by side with ἄλλεπει; Δινίας (*SEG XXV*, 186, 266/5 B.C.) for Δεινίας (*SEG XXXVI*, 220, 320 or 290-280 B.C.); ἀπολέλιπται εἰκόνας (*Αθήναιον Η' ν*, 294f. iiird c. B.C.) for ἀπολέλειπται εἰκόνας; Πεισίδης (*IG* II² 10080, ivth c. B.C.) and Πισίδης (*IG* II² 10081, iii-iiind c. B.C.).

For Euboea see e.g. *IGA* 372 (vi-vth c. B.C.): 29, 30, 31: Αριστοκλίδης along with 28:

Αριστοκλίδης; 72: Λεωκρατίδες; 115 Εύθυνηίδης and 117: Εύξεινίδης; 274, 281: Νεοκλείδης and 275: Νεοκλίδης; 312: Πίριθος (for Πείριθος) 359: Τείμαρχος and 365: Τιμαρχος; 364: Τιμαρχίδης.

For Boeotia the following examples may be cited, all vth c. B.C. or earlier: *IGA* 223: εὐτέλια (for εὐτέλεια); 259: Καλλιγίτον (for Καλλιγιείτων); 300: [Αρ]ιστογίτον (for Αριστογοίτων); Χαρόκλια (for Χαρόκλεια); Αὐτοκράτια side by side with correct Αὐτοκράτεια (245).

³⁵ vth cent. B.C.: Μείλιχος, Μήλιχος Μίλιχος (P. Kretschmer, *Die griechischen Vaseninschriften ihrer Sprache nach untersucht*, Gütersloh 1894, 133f, 233); ἴρις ταχεῖα understood as Τριήρης ταχεῖα, Aristophanes, *Aves*, 1204 (hence the question: Πάραλος ἢ Σαλαμινία — the two fast State ships of Athens. See further ἀναθεϊκάσι (*CIA* II, 470, 71 and 80, 69-62 B.C.) along with ἀνατεθηκότων (*CIA* II, 403, 38, iiird c. B.C.) ἀνατέθηκεν (*CIA* II, 835, 35 and 45, (line 35 ἀνέθηκεν), 320-317 B.C.) and τεθηκότας (*CIA* II, 1053, 7, ist c. B.C.); καθήλκον (*CIA* II, 470, 20, ist c. B.C.) for καθεῖλκον.

³⁶ See e.g. 600-550 B.C.: Συκεῦσιν and Σιγενεῦσιν (*IGA* 492); Διόνσιος (Beazley, *Attic Black-figure Vase-painters*, p. 176, 2, 550-525 B.C.) for Διόνυσος (writing the letters in wrong order is a frequent phenomenon in inscriptions); further, Λισικλῆς (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 Λυσικλῆς; Ηιποτελε (Beazley, *Attic Black-figured Vase-painters*, p. 668, vi-

vth B.C.) for ΗΥποτελε; Ηιποκίμενος (Beazley, *Attic Black-figured Vase-painters*, p. 668, vi-vth c. B.C.) for Ηυποκείμενος; Τύρινθι (*Corpus Vasorum Antiquorum: Great Britain*, 4, III, Ic pl. 8,2 a-b, vi-vth c. B.C.) for Τίρυνθι; δάκρυον (P. Kretschmer, *Die griechischen Vasenschriften*, 119,97, vi-vth c. B.C.) for δάκρυον; Σιγείυσιν and Σιγείῳν (*SEG X*, 13, **451/50 B.C.**). Πίθις (*SEG XXXII*, 32, c. **500 B.C.**) for Πῖθ-; Διονισιγένης (Richter-Hall, p. 72,52, **490-480 B.C.**) for Διονουσιγένης. vth cent. B.C.: Διονισιγένης for Διονουσιγένης; Κρησις for Κρησις; Κρησεύς for Κρησεύς; Διονίσια for Διονύσια; Διόνισος instead of Διόνυσος and Τύρινθι instead of Τίρυνθι (P. Kretschmer, *Vasenschriften*, 119, and 64, 90.); Ἀριστονίμο (*Hesperia XIX*, 383, 12,2; 13 and 16,2, **483/2 B.C.**) for Ἀριστονόμο; Θρασιμέδ[ο]ν (*SEG XVI*, 23,11, **465/4 B.C.**) for Θρασιμέδον; Λισίστρατος (*SEG XVI*, 23, 32, **465/4 B.C.**) for Λυσίστρατος; Κινδυής (*CIA I*, 37, **425 B.C.**; 233, **447 B.C.**, 240, **440 B.C.**) side by side with Κυνδυής (*CIA I*, 230, **450 B.C.**); *SEG III*, 131 (**400 B.C.**) συβύνη instead of σιβύνη, συβήνη or συβίνη; ἤμισυ (*CIA II*, 17, a, 45, **378 B.C.**; 794, d, 58, **356 B.C.**; etc. *SEG XXI*, 527, 30, **363/2 B.C.**) and ἤμισυν (*CIA II*, 1055, 37, **345 B.C.**) instead of ἤμισυ (*CIA IV*, 3, a, 8, **444 B.C.**); Ἀμφικτύονες (Ἀμφικτυονικόν *SEG XXV*, 39, **409/8 B.C.**) side by side with Ἀμφικτίονες (*CIA II*, 54, **374 B.C.**); Εὐθίδικος (*SEG XIX*, 149 A col. I, 19, **336/5 B.C.**) for Εὐθῦδικος (*CIA I*, 437, vth c. B.C.); Σίβιλλα (*CIA II*, 835, 54, **320 B.C.**) for Σίβυλλα; Ὑσμῆνα (Kretschmer, *Vasensinschr.* 31, ivth c. B.C.) for Ἰσμῆνα; Βλέπιρος (*CIA III*, Defix. tab. 7, iv-iiiith c. B.C.) for Βλέπιρος; Σατίρας (*CIA III*, Defix. tab. 39, line 12, iv-iiiith c. B.C.) and Σάτυρα (line 9); Μύλητον (*SEG XXXII*, 318, **300-250 B.C.**) for Μίλητον; Εὐτιχίς (*CIA II*, 2935, iiiird c. B.C.), for Εὐτυχίς; Μουνηχιών (*CIA II*, 247, 6, **306 B.C.**) for Μουνηχία (-ιών) (*CIA I*, 215, 9, **434-403 B.C.**; *CIA II*, 600, 30, **300 B.C.**); Χοίρυλος for Χοίριλος (*Bulletin de Correspondance Hellénique*, Athens, 1890, 389, **279 B.C.**); ἤμισυ for ἤμισυ (**230 B.C.**); κυλίχιον Κυνθηκῶ for κυλίχιον Κυνθικῶ (**180 B.C.**); ἤμισυ (*Greek Pap. in Brit. Mus.* 22, 6-10; 24,5; 25, 15-7; iind c. B.C.) for ἤμισυ, but ἤμισυ in 46, 24; ἀρχιπερέτην (*Greek Pap. in Brit. Mus.* 41, 121, 158-7 B.C.) along with ἀρχιπερέτην (at 97); βίβλος, βιβλίον (*CIA II*, add. 1, b, 25, **403 B.C.**) and βυβλία, βύβλος, βύβλιοθήκη (*CIA II*, 468, 25 (early Ist c. B.C.); 478, d,1, **68-48 B.C.**); Μυνύκιος (*Εφημερίς Ἀρχαιολογική III*, 1884, 100, **73 B.C.**) but Μινύκιος (*Bulletin de Corr. Hell.* VIII, 154, **45 A.D.**).

³⁷ E.g. Κηθήρ (*SEG XVI*, 123,28, **350 B.C.**) for Κυθήρ.

³⁸ E.g. Callias's word-play κέρδος αἰσχύνης ἄμεινον· ἔλκε μοιχὸν εἰς μυχόν (mid. vth c. B.C.). See further Κοίβων (*IG II²* 1635, 81, **374/3 B.C.**) for Κύβων; Ποιθικοῦ (*IG II²* 2407, 5, **350 B.C.**) for Πυθικοῦ; Ποίτιος instead of Πύτιος (Dethier, *Sitzungsberichte der Akademie zu Wien*, 1859, Vol. 30, p. 431, iiiird cent. B.C.); φοίλοπις instead of φύλοπις (iind cent. B.C., see *Δελτίον τῆς Ἐστίας*, 591, 24 Apr. 1888, p.2); ἀνύγετε instead of ἀνοίγετε, *Louvre Papyrus* 50, 7 (**160 B.C.**). The exchange becomes very frequent after the Ist c. A.D.

³⁹ E.g. Πειθαγόρα (*SEG XXI*, 126, 9, **430 B.C.**) for Πυθαγόρας.

⁴⁰ Also L. Threatte, *The Grammar of Attic Inscriptions*, Vol. I, Berlin 1980, p. 261 and 323, concedes that υ 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. Schwyzler) *Grammatik der Attischen Inschriften*, 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 δῦη instead of δυῖη; XIX, 248 δαινύατο instead of δαινυῖατο; and *Iliad*, XV, 99 δαινυται instead of δαινυιται.

⁴² The earliest example detected so far is Ηιλέθια (SEG XXXV, 37, **580-70 B.C.**) for Ἰλέθια. See also ἀπεληλυθίας (CIA I, 273, **vth c. B.C.**) instead of ἀπεληλυθίας; Ἰλείθια (CIG 7403) instead of Εἰλείθια (CIG 7402); κατεαγῖα (CIA II, 678 B, 65, **378-366 B.C.**) instead of κατεαγῖα; παρεληφια (CIA II, 811 c, 150, **326 B.C.**) instead of παρεληφῖα; Ὀρειθῖα (CIA II, 789, 64, **373 B.C.**; 793 d, 7, **357 B.C.**) instead of Ὀρειθῖα; ἐκπεπλευ[κ]ῶν (CIA II, 793 a, 7f., **357 B.C.**) for ἐκπεπλευκῶν; κωδῦας (CIA II, 701, 1, 68, 70, **344 B.C.**) for κωδῦας; ὄργυας (CIA II add. 834, b, I, 9, 54, **329 B.C.**) for ὄργυας.

⁴³ An earlier example is Μῖραι (SEG XXXV, 37, **580-70 B.C.**) for Μοῖραι. See further περιαιλιφῖν (CIA II, add. 834, b, I, 61 = *Εφημ. Ἀρχ.* 1883-4 p. 109, **329 B.C.**) instead of περιαιλοφῖν; similarly SEG XIX, 58, vs. 85 (**307/6 B.C.**) ἀλιφῖν and SEG III, 147 (**289/8 B.C.**) τὴν ἀλιφῖν (for ἀλοφῖν), and especially from the **ii**nd century **B.C.** on (e.g. συνηκολουθηκότοι instead of συνηκολουθηκότι, F. G. Kenyon, *Catalogue of Greek Papyri in the British Museum*, p. 9, 13-14).

⁴⁴ Cf. δεῖν (*Εφ. Ἀρχ.* 1883-4 p. 125, line 73) along with the correct δυοῖν (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 δεῖν 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 XXI, 525,42, **282/1 B.C.** and SEG XIX, 80, 25 (date?), while δυοῖν 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 **iv**th c. **B.C.**) Φαληρεῖ (for Φαληροῖ); Περιθειδης (*Bull. Corr. Hell.* 1890. p. 62, late **iv**th c. **B.C.**) for Περιθειδης; CIA II, 476, 12f., **101 B.C.** τοῖς λοιπέις for τοῖς λοιποῖς. SEG XIX, 129, 2, **352/1 B.C.** ἐν τῷ δευτέρῳ τοίχῳ (also lines 6, and 17) may be a confusion for τοίχῳ.

⁴⁵ So far detected in papyri, e.g. *Louvre Pap.* 55, 11-15 (**168 B.C.**): ἦνου instead of οἴνου (3 times); *Greek Papyri in Br. Museum*, p. 9, 13-14 (**162 B.C.**): συνακολουθηκότοι σοι (for -κότι σοι); διοίκησαν (**165-158 B.C.**).

⁴⁶ As examples may serve the following: Δημοσθένης (SEG XIX, 37 **vth c. B.C.**) instead of Δημοσθένης; Ἀθινᾶ (SEG XIX, 37, **vth c. B.C.**) for Ἀθηνᾶ; Ἄρις (SEG XIX, 37, **vth c. B.C.**) for Ἄρης; Δημοσθένης (SEG XIX, 37, **vth c. B.C.**) for Δημοσθένης; Καμηρῆς (CIA I, 228, 12, **452 B.C.**) instead of Καμηρῆς (CIA I, 233, **447 B.C.**; 237,11, **443 B.C.**; 239, 52, **441 B.C.**; 240, 75, **440 B.C.**); Σικινῆται (CIA I, 37, 79, **425 B.C.**) instead of Σικινῖται; Εὐφίβος (Kretschmer, *Vaseninschriften*, 138, **vth c. B.C.**) for Εὐφηβος; Πιδασηῖς (CIA I, 37, **425 B.C.**) instead of Πηδασηῖς (CIA I, 233, **447 B.C.**); Ἡπποκράτης (IGA 26, **425 B.C.**) for Ἰπποκράτης (CIA I, 273, b 3, **426 B.C.**); συβήνη (CIA I, 170, 19, **422-419 B.C.**) instead of συβῖνη; also 172, 18 (**420 B.C.**); again Καμηρῆς (CIA I, 263, 9, **420 B.C.**) and Καμηρῆς (CIA I, 37, **425 B.C.**; 256, 17, **430 B.C.**); τίνδε instead of τῆνδε and σίμα instead of σῆμα (IGA 382, 3-4, **iv**th c. **B.C.** or earlier); Σικινῆται (CIA I, 37 B, 31, **425 B.C.**; II, 17 b, 31, **378 B.C.**) for Σικινῖται; Μελησάνδρου (CIA II, 801, 14, c. **350 B.C.**) instead of Μελισάνδρου; Θυαῖνι (CIA II, 754, 13; 755, 7, **344 B.C.**) instead of Θυαῖνη; θερμαστίν (CIA II, 754, 29, mid-**iv**th c. **B.C.**, cf. 755, 21; 756, 8) instead of θερμαστῖν; ὕλιν (CIA II, 1059, 9, **321 B.C.**) instead of ὕλην; ἀμαξήποδα (CIA II, add. 834, c, 42, **329 B.C.**) instead of ἀμαξίποδα; γεισήπους (CIA II, 167, 51, c. **307 B.C.**) instead of γεισίπους; γεισηπόδιμα (SEG XIX, 58, vs. 63, **307/6 B.C.**) and again γεισηπόδιμα (CIA II, 167, 63 and 114, **305 B.C.**) instead of γεισιπόδιμα; also γεισήπους for γεισίπους (**iii**rd c. **B.C.**); ἀρετίς (CIA II, 258, 16, **304 B.C.**) instead of ἀρετῆς; τήθη (CIA II, 836, c-k, 43 **iii**rd c. **B.C.**) instead of τίθη (?); Ἡρακλεώτις (CIA II, 2936, **iii**rd c. **B.C.**) for Ἡρακλεώτης; Επικρατῆς (CIA II, 3222, **iii**rd c. **B.C.**) for Επικρατῖς; Διμίτριος (*Bull. de Corr. Hell.*, V, 168, no. 33, **iii**rd c. **B.C.**) for Δημήτριος; Δηώνα (C. Carapanos, *Dodone et ses ruines*, Pl. XXXVI, no. 2 and 5, **iii**rd c. **B.C.**) instead of Διώνα; οικῆας (CIG 1690, 21, **iii**rd c. **B.C.**) instead of οἰκίας. The following readings are all dated before Roman times: Ἀριμνίστει instead of Ἀριμνήστη; Ἡπρωτίς χριστή

instead of Ηπειρώτις or Ἡπειρώτις χρηστή; δηαναγείλαι (Dittenberger, *Sylloge*, 195,7) instead of διαναγείλαι; and ἱρώων (Ross, *Inscr. græc. ined.* Fasc. III, p. 15, no. 264) instead of ἡρώων. In Egyptian papyri διδασκαλλήω (Louvre Pap. 51, 10, **160 B.C.**) instead of διδασκαλίω, and often in these papyri. See also *SEG XIX*, 124, 2 (**152/1 B.C.**) πέμπτει instead of πέμπτη. Further: τῖ (Louvre Pap. 15 a, 15, **120 B.C.**) for τὴν [μίαν]; Αὐριλίᾶς side by side with Αὐρηλίος (*Mittheilungen des Arch. Instituts*, Berlin, 1876, XIV, 114, 72, 3-6, **120 B.C.**) for Αὐρηλία; ψίφισμα (*Mittheilungen*, 110, 66, **120 B.C.**) for ψήφισμα; φηλώτα (*Mittheilungen*, 105, 51, **120 B.C.**) for φιλώτα. An example from Selinous, Sicily is: Ἀριστοφάνιος and Ἀριστοφάνης (*SEG XXVI*, 1113, late **vith c. B.C.**);

⁴⁷ To the examples cited under EI, add e.g. τῆ βουλεῖ (*CIA II*, 38, 7, before **376 B.C.**) instead of τῆ βουλή; χαλκοθήκει (*CIA II*, 61; 7,13, **357-353 B.C.**) instead of χαλκοθήκη; ἀγαθῆ τύχει (*CIA II*, 186, 26, **322 B.C.**) instead of ἀγαθῆ τύχη; ἀφείκε (*CIA II*, 811, c, 119) (**323 B.C.**) instead of ἀφῆκε; Αἰνίου (*CIA II*, 1049 A 55, **120 B.C.**) for Αἰνείου; cf. also Αἰνέας (*CIA IV*, b, 34, c,2, **c. 434 B.C.**) and Αἰνεῖσθαι (*CIA I*, 259, 18, **428 B.C.**), with Αἰνεῖσθαι (*CIA I*, 234, 34, **446 B.C.**); Ἄρηος πάγος (*CIA III*, 63, Augustan age; 452; 567, **39 B.C.**; 587, **11 B.C.** etc.) instead of Ἄρειος πάγος; εἶτηκεν (*CIA II*, 331, c. **280 B.C.**) for ἦτηκεν. From the **ivth c. B.C.** on EI stands for HI exceedingly often (e.g. *SEG XXVI*,93, **iiird 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.**): ταύτει παράκειται (also line 50); *SEG XXVIII*, 60 (**270/69 B.C.**): ὀγδοεῖ, εἰκοστεῖ, τεῖ βουλεῖ, καὶ τῶι δήμῳ (!), τεῖ Ἀρχιγέτιδι, τεῖ θεῶι (!), τεῖ δημοκ[ρατί]αι, ἀγαθῆ τύχει, τεῖ διοικήσει, τεῖ ἀγορῶι, στήλει λιθίνει) and even the same construction (e.g. *CIA II*, 38,2 (c. **380 B.C.**): ἐν στήλῃ λιθίνει (also line 19); *CIA II*, 61, 7 (**357-353 B.C.**): ἐν τῇ χαλκοθήκει; *CIA II*, 114,4 (**343/2 B.C.**): ἐν τεῖ βουλήι; *SEG XXX*, 69 (**304/3 B.C.**): τῆ Ἄγαθει Τύχει), it would seem that the interchange is due to confusion on account of similar or identical pronunciation.

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

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. κληῖς (= κλήϊς) (*CIA II*, 675, 44, c. **403 B.C.**) and κλεις (*CIA II*, 675, 47, c. **403 B.C.**; 678, b, 64 (κλες), **378-366 B.C.**); ληιστῶν (= ληστῶν) (*Mitteilungen X*, p. 57 line 11 **346 B.C.**) and λειστῶν (*CIA II*, 804, B, b, 35, **344 B.C.**); ληιτοργιῶν (= λητουργιῶν) (*CIA II*, add. 554 b, 14, **386 B.C.**) and λειτου[ρ]γούντες *CIA II*, 316, 11, **282 B.C.**; πεντεληικούς (*Εφημ. Ἀρχ.* 1886, p. 199ff. lines 79, 94, early **iv c. B.C.**; *CIA II*, 1054, 31, 33, 45, **347 B.C.**) and πεντελε[ι]κούς (*Εφημ. Ἀρχ.* 1886, p. 201f., early **ivth cent. B.C.**); Ἀριστηίδης (*CIA II*, 814 a, B, 22; 864, 29, **400-350 B.C.**) and Ἀριστείδης (*CIA II*, 814, a, A, 22f., **374 B.C.**); Ἀρρηνίδο (= Ἀρρηνίδου) (*CIA II*, 864, iii, 21, **400 B.C.**) and Ἀρρηνεΐδει (*CIA II* add. 834 b, II, 60, **329 B.C.**); Ἀρχενίδου (*CIA II*, 793, b, 70, **357 B.C.**) and ἈρχενΕΐδου (*CIA II*, 811, d, 141, **323 B.C.**).

⁵¹ For spurious ου (written as o) see e.g. μισθόντα (*Mitteilungen. IX*, p. 117, line 6, **570 B.C.**); ἐλθῶσαν (*CIA IV*, 27, a 13, **445 B.C.**); ὑποργοῖς (*CIA I*, 301, 31, **378 B.C.**) for ὑπουργοῖς; [ἐν]οικόντων (*CIA II*, 17, 17, **378 B.C.**) for ἐνοικούντων; ἀποστόλο (*CIA II*, 809, b 24, **325 B.C.**) for ἀποστόλου; ναυστάθμο (*CIA II*, 809, a 220, **325 B.C.**) for ναυστάθμου; and for original ου: βῶν (**439 B.C.**) for βουῖν; again βῶν (*SEG I*, 4, **418 B.C.**); τῶτο (e.g. *CIA I*, 128, **415 B.C.**) instead of τούτου.

⁵² O interchanges with Ω infrequently from the latter's appearance to the end of the **iii**rd c. **B.C.** (e.g. on Attic vases of **v-iv** c. **B.C.**: Δίφιλωσ (beside Δίφιλος), Διώνυσος (for Δίονυσος), Ἀλκίμαχως (for Ἀλκίμαχος), καλώς (for καλός); Λεωντίς (CIA II, add, 17, 4, **378 B.C.**; CIA II, 73, 11, **368 B.C.**) along with Λεοντίς (CIA II, 835, 62, **320-317 B.C.**), cf. also Λεοντίνοις (SEG X, 48, **433/2 B.C.**); Σάμων (for Σάμον) CIA II, 808 a, 130, **326 B.C.**); λιπόν (for λιπών) (CIA 2836, 6, c. **300 B.C.**); μνημείων (Mittheilungen X. 363) for μνημείον; τὸν ἔγγονων, παραγγελλέτοσαν (Εφημ. Ἀρχ. 1884/85, p. 137, 11 and 14) (for ἔγγονον, παραγγελλέτωσαν); Θεοδωσία (CIA 3216) for Θεοδοσία; γνώμη (CIA 3580) for γνώμη; Λυσίωσι side by side with Λυσίονι (Εφημ. Ἀρχ. 1886, p. 158, 103; 264; 291); αὐτωῦ 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. κομοιδία (for κωμωδία) (**iv**th cent. **B.C.**); τῶι δήμοι (CIA II, 277, 7, c. **300 B.C.**) for τῶι δήμῳ; τῶι ἱερῶ (CIA II, 277, 7, c. **300 B.C.**) for τῶι ἱερῶ.

⁵⁴ Ἀρίστηχιμος (cf. IGA 300, **v**th c. **B.C.**?) (for Ἀρίσταχιμος, cf. IGA 397 and 398, **v**th c. **B.C.**?), Ἡγοσθενίτης (for Αἰγοσθενίτης), Δημήνητος (for Δημᾰίνετος), Ἠχμῶν (for Ἀἰχμῶν), Φήδιμος (for Φαίδιμος), χῆρε (for χαίρε), ταμίη (for ταμίαι), τίπτομη (for τίπτομαι), κλήω (for κλαίω) Ἀθανῆοι (for Ἀθαναίοι).

⁵⁵ See e.g. Ἐλαίται (CIA I, 228, 4, **452 B.C.**) (pronounce *Ele-í-te*, not *Ela-i-i-ta-i*); ἐλαίνος (CIA II, 678, B, 10, **378 B.C.**) (pronounce: *elé-í-nos*, not *ela-i-i-nos*); Ἀθηναϊκόν (CIA II, 780, 14, c. **300 B.C.**) (i.e. *Athene-í-kón*, not *Athena-i-i-kon*); Ἑρμαϊκόν (CIA II, 781, 4, 5, c. **300 B.C.**) (i.e. *Erme-í-kón*, not [H]erma-i-i-kón).

⁵⁶ See Δικεαίκεσ (= Δικεάρκης?) in *Corp. Vas. Antiq.*: Gr. Brit., Vol. 4, pl. 39, 2 a-b (end of **v**th c. **B.C.**); Χαिरαία (W. Klein, *Die griechischen Vasen mit Lieblingsinschriften*, 2. Aufl. Leipzig 1897, no. 38, **530 B.C.**); χαίρε καὶ πίαι (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 πίαι (?); μά[σ]με καὶ ποτέο (Hopplin, *Handbook of Attic Red-figured Vases*, 410, 29, late **v**th c. **B.C.**); Ἀρισταίου (IG I Suppl. 491 ³⁵, line 3, **450 B.C.**) and line 1' Ἀριστέας, line 4' Ἀριστέου; Ἐλέρα (Corp. Vasor. Antiq.: Gr. Br. 8, III Ic, pl.91, 1 a-d (bis), late **v**th c. **B.C.**) for Ἐλαίρα; Πεδιάρχος (SEG XXV, 198, **iv**th c. **B.C.**) for Παιδιάρχος; Πέδαρχ[ος] (CIA III, Defix.tab.29,5, **iv-iii**th c. **B.C.**) for Παιδαρχος; Πλατεεύς (IG II² 10089, **ist B.C. - ist A.D.**) for Πλαταιεύς; Πεανιεύς (IG II² 2297, mid-**ist c. A.D.**) for Παιανιεύς; ἐλαίου (IG II² 4786, **ist c. A.D.**) for ἐλέου. For papyri occurrences, see e.g. *Timotheos papyrus* III, 79-80, **iv**th **B.C.**: παλεομίσημα for παλαιομίσημα and πα[λ]ε[σ]υμφαιογόνον for παλαιουμφαιογόνον. See further *Col. Zen.* 39, 6, **iii B.C.**: τὸ παλιόν βαλανεῖον (παλιόν = Mod. Greek < παλαιόν); [ἐπίσ]ταμε for ἐπίσταμαι (*PSI* 540, 10, **iii B.C.**); τελέσεσθαι for τελέσεσθε (*Tebt.* 703, 255, **iii B.C.**); ἐσχηκένε for ἐσχηκέναι (*SB* 9874, 3, **ii B.C.**); ἐπιφέρηται for ἐπιφέρητε (*Tebt.* 816, 32, **192 B.C.**); ἀνύγετε (*Louvre Pap.* 50, 7, **168 B.C.**) for pass. ἀνύγεται; ὀράται (*Louvre Pap.* 1, 386, **165 B.C.**) for ὀράτε; ἐξεναικεῖν for ἐξενεγκεῖν (*Weil* III, 9, before **160 B.C.**); παλεοῦ instead of παλαιοῦ (*UPZ* 94, 8, **159 B.C.**); ὀλιγοψυχίσθαι for ὀλιγοψυχίσθε, (*UPZ* 78, 10, **159 B.C.**); ἔφαιρ for ἔφερ (*UPZ* 79, 7, **159 B.C.**); σημέαν (*Greek Pap. Brit. Mus.* 38, 23; 39, 45; 40, 66, **158 B.C.**) for σημαίαν; εἰδηται (*Louvre Pap.* 43,4, **154 B.C.**) for εἰδητε, etc.

⁵⁷ An archaic letter almost entirely substituted since **v**th c. **B.C.** by β or consonantal υ.

⁵⁸ **vi-v**th c. **B.C.**: ΝαΨπακτίων side by side with Ναυπακτίων (*IGA* 321); ἔΨθετος (*IGA* 20, 101) instead of εὔθετος; ἄριστέΨοντα (*IGA* 343, 4) instead of ἄριστεύοντα; ἄΨυτοῦ (*IGA* 409) instead of αὐτοῦ; ἈΨῶνι (instead of Αὐλῶνι); ἀμοΨφαν (*IGA* add. 20, 108 a, **v**th c. **B.C.**) for ἀμοιβάν; ; ἐΨπραγίης (instead of εὐπραγίης). The pronunciation of υ as ν is proved also by εὐΨαοίσις (*IGA*

110, 2, early **v**th cent. **B.C.**); Εὐανδρος side by side with Εὐβανδρος (C. Carapanos, *Dodone*, Pl. XXXIV, nr. 3, **iv**th cent. **B.C.**); **iii**rd cent. **B.C.**: εὐδομον (*CIG* 1563) for ἔβδομον, and εὐδομήκοντα (*CIG* 1845, 47) for ἔβδομήκοντα; **iii–ii**nd cent. **B.C.**: ἐπίστεψε (*Wescher et Foucart, Inscriptions recueillies à Delphes*, Paris 1863, no. 403, 5) instead of ἐπίστευσε.

⁵⁹ I.e. Evenus (Εὐηνος) *Corpus Inscriptionum Latinarum* (= *CIL*) V, 1009; Evanthe (Εὐάνθη, -ία) *CIL* V, 6107; Evangelo (Εὐάγγελος) *CIL* V, 647; Evodiae (Εὐοδία) *CIL* III, 2435; Evodus (Εὐοδος) *CIL* II, 4970; Evelpistus (Εὐέλπιστος) *CIL* II, 213; Evonetus (Εὐόνητος) *CIL* II, 1648.

⁶⁰ Evvenus (*CIL* II, 4534), Evvangelo (*CIL* V, 1200), Evvaristus (*CIL* V, 8110, 80a), Evvodia (*CIL* V, 2310), Evvantia (*CIL* V, 6222) Evvodo (*CIL* III, 2413), Evvagrio (*CIL* IV, 1198).

⁶¹ Similarly Aulus, Aurelius become Αὔλος (*Avlos*), Αὐρήλιος (*Avrilios*) rather than Ἄουλο(υ)s (*Aulo(u)s*) Ἀουρήλιο(υ)s [*Aurelio(u)s*], and Claudius, Claudia, and Augustus become Κλαύδιος, Κλαυδία and Αὐγουστος, not Κλαούδιο(υ)s, Κλαουδία, Αούγουστο(υ)s, 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 Παουλίνα (= *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 χαλκῶ (= ἐχ χαλκοῦ). Similarly *SEG* III, 44 (before **420 B.C.**) line 5: τόγ χρυσίον (change of *v* to *γ* before *χ*) supports the pronunciation of *γ* = *gh* and *χ* = *ch* (as *loch*).

⁶⁸ The pronunciation of words like συμφθείρω, ἦρχθην, ἠλέγχθην in the Erasmian manner, i.e. συμ-p+h-t+h-ε-ίρω, ἦρ-k-h-t+h-ην, ἠλέ-γ-k+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 Βυζαντίου (*CIA* I, 40,35, **444 B.C.**); ἐγβολῆς (*Ἀθήναιον* Vol. II. p. 484, 15, **300 B.C.**) for ἐκβολῆς; ἐγ βουλήs (*Bull. de Corres Hell.*, VIII, p. 197, line 67, 71, 83; p. 198, line 1,3, **329 B.C.**) for ἐκ βουλήs; ἐγ Βεν[δ]ιδέων (*CIA* II, 741, A, a, 22, **334 B.C.**); *Before Γ*: ἐγγονος (*CIA* I, 381, **v**th cent. **B.C.**) for ἐκγονος, as well as ἐγ Γαργηττίων (*CIA* III, 1640,2, Imperial times). *Before Δ*: ἐγδῶ (*CIA* IV, 1,a,31, before **450 B.C.**); ἐγ Διός (*CIA* IV, b, 53, a, 34, **418 B.C.**); ἐγ Διονυσίων (*CIA* II, 741, A, a, 7, 16, **334 B.C.**); ἐγ δέ (*CIA* II, 836, ab, 11, **320-295 B.C.**) for ἐκ δέ; ἐγ Δελφῶν (*CIA* IV, b, 27, b, 5, 26, **439 B.C.**) for ἐκ Δελφῶν; ἐγ Δήλου (*CIA* II, 813, a, 3, before **400 B.C.**). *Before Λ*: ἐγ Λίνδου (*CIA* I, 239, ii, 59, **441 B.C.**) for ἐκ Λίνδου; ἐγλέγειν (for ἐκλέγειν), ἐγλεχθῆ (*for* ἐκλεχθῆ) etc. (*CIA* IV, b, 27, b, 8, 16, **439 B.C.**); ἐγ Λεοντίων

(CIA IV, 33, a, 1, **433 B.C.**); ἐγλέξοντες (CIA I, 38, g, 22, **432 B.C.**); ἐγ Λέσβου (CIA I, 170, 19, **421 B.C.**); ἐΓ Λέσβο (SEG III, 131, **400 B.C.**); ἐγ λιμένος (CIA II, 1078, 4, **v-ivth c. B.C.**). *Before M:* ἐγ Μακεδονίας (CIA IV, b, 35, c, **440-432 B.C.**); ἐγ Μυρίνης (CIA I, 443, 1, **430 B.C.**); ἐγ Μυρρινούττης (CIA II, 872, iii, 22, **341 B.C.**) for ἐκ Μυρρινούττης; ἐγ Μεγάρων (CIA II, add. 834, c, 28, c. **329 B.C.**). *Before N:* ἐγ νήσων (CIA II, 62, 16, **357 B.C.**); ἐγ νεωρίων (CIA II, add. 834, c, 12, c. **329 B.C.**). All these examples as well as the interchanges of γ with κ (in e.g. γναφεῖον (CIA II, 817, a, 28, **vith cent. B.C.**, cf. κναφεύς, CIA IV, 373, f, **ivth cent. B.C.**), Γνίφωνος (CIA II, 671, 7, **376 B.C.** and SEG XXIV, 165,7, **ivth c. B.C.**), cf. Κνίφων (CIA IV, b, 446, a, 18, **409 B.C.**); ἀγροπόλει (CIA II, 272, 11, end of **ivth cent. B.C.**) instead of ἀκροπόλει) indicate that the γ was voiced as *gh* and that the β and δ had the sounds of *v* and *th* (in "then") respectively. As for the *y*-sound of γ, this is borne out by such examples as ὀλίος instead of ὀλίγος, ἐπιταή instead of ἐπιταγή (cf. also the later Τραγειανοῦ for Τραειανοῦ, *Ägyptische Urkunden aus den königlichen Museen zu Berlin*, 68), which would hardly have been possible if the γ was sounded as *g*, but are readily explainable if the γ is sounded voiced as the Greeks sound it.

⁷⁰ Thus, in Εὔβανδρος, as the form Εὐανδρος shows, the Β cannot have been pronounced as English Β, i.e. Evbandros, but as V: Evvandhros (*dh* = like *th* in *then*). Similar assimilation occurs also in Εὔβοια, i.e. Evvüa (Evvia), not Evboia.

⁷¹ See further Αὐά (4 Kingd. 19:13); Αὐίμ / Αὐείμ (Josh 18:23); Εὔα (Gen 4:1); Εὐί (Josh 13:21); Εὐιλά (Gen 10:7); Λευί (Gen 29:34); Λευιάθαν (*Aquila, Symmachus: Job 3:8*); Ραγαῦ (Gen 11:19); Νινευή (Gen 10:11); Σαυή (Gen 14:6). That the υ had the sound of *v* in all these cases is proved by the original Hebrew *waw*, as well as by alternative spellings, e.g. Δαυίδ / Δαβίδ, Λεβιάθαν, Σαβύ (Cod. Sinaiticus). That Hebr. *beth* is also transliterated with Greek β is natural since they were the closest equivalents. It should, however, be remembered that *beth* was pronounced both as *b* and as *v*.

⁷² E.g. Βάκχος > Bacchus, Βακχυλίδης > Bacchylides, Βάκτρα > Bactra and barbatus > βαρβᾶτος, Βαρκίνο (Barcelona) > Βαρκελώνα, Βύρρος > Βουρρος, and Βρούτος > Βρούτος.

⁷³ W. Dittenberger, *Sylloge Inscriptionum Graecarum*, Lipsiae ³1915-24, 200, 12 (**196 B.C.**)

⁷⁴ The voiced γ (*gh*) and δ (*dh*), sounded by Greeks, eases the pronunciation.

⁷⁵ Cf. e.g. *Blitzschlag*, *Bisamstorchschnabelkraut*, *Durchschrift*, *Dirnd[e]lschürze*.

⁷⁶ i.e. πρεζβευτοῦ (instead of πρεσβευτοῦ), ζμύρνα (instead of Σμύρνα), ἀναβαζμούς (instead of ἀναβασμούς), Πελαζγικόν (instead of Πελασγικόν) (**iv B.C.**, see M. Ph. Le Bas, et al., *Voyage archéologique en Grèce et en Asie Mineure*, II (Paris 1888), 122).

⁷⁷ *Αθήναιον*, Vol. III, p. 480, line 20, **346 B.C.**

⁷⁸ CIA II, 325, a, 5, before **268 B.C.**

⁷⁹ E.g. IGA 112 (**vth c. B.C.** or earlier): ζέ (= δέ), ζίκαια (= δίκαια), ζέκα (= δέκα), Ζί (= Δί), Ἑλλανοζίκας (= Ἑλλανοδικας, note the absence of aspiration), ζαμιουργία (= δαμιουργία), ζίφυιον (= δίφυιον).

⁸⁰ CIA I, 228, 5,b, **454 B.C.**

⁸¹ CIA I, 238, 12, **442 B.C.**

⁸² CIA I, 231, 22, **449 B.C.**

⁸³ CIA I, 230, 10 b, **450 B.C.**

⁸⁴ 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, ä, 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.

⁸⁵ 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*, ist c. **B.C.**

⁸⁶ Later, when it became customary to use the hand rather than the foot, the raising of the hand (ἄρσις χειρός) came to symbolize the beat or ictus, while its lowering (θέσις χειρός) symbolized the dropping or absence of beat or ictus. This converse significance passed into modern terminology.

⁸⁷ Homer, *Iliad*, VII, 118.

⁸⁸ Homer, *Iliad*, XVI, 34 (γλαυκή, masc. presupposed); Plato, *Timaeus*, 68 c.

⁸⁹ Homer, *Iliad*, XX, 74.

⁹⁰ Plato, *Timaeus*, 68 b.

⁹¹ Homer, *Odyssey*, XIX, 432.

⁹² Homer, *Odyssey*, XVII, 225.

⁹³ Aristotle, *Sophistici Elenchi*, 166b, 3-6; 177b, 35-178a.

⁹⁴ *Cratylus*, 399 a-b.

⁹⁵ *Sophistici Elenchi*, 177b 6 ἤδη παράσημα ποιούντες.

⁹⁶ Varro, IV, 530:

⁹⁷ Later this practice was discontinued ἵνα μὴ καταχαράσσωνται τὰ βιβλία, Sch. Dionysius Thrax 139 h.

⁹⁸ The adduction of *really!* against the above contention misses the point. Even if *really!* were really sounded in the way claimed, it is an adverb expressing astonishment. Is it really credible that Greeks would have pronounced all their circumflexed words as words expressing astonishment?

⁹⁹ For Elis see *SEG I*, 94 (**viith c. B.C.**): υψελίδαι ανέθεν εἰς ἡρακλείασ.

¹⁰⁰ E.g. ἀλιεῦσι (*CIA I*, 433, 3, **460 B.C.**; also 337, **vth c. B.C.**) instead of ἀλιεῦσι.

¹⁰¹ E.g. *IG I² 372 (409/8 B.C.)* lines 118 ἡέκποδες; 162 ἡέκποδε; 226 ἡέκπος.

¹⁰² We thus get such monstrosities as: a *col. I*: 4 καθιστᾶσιν (for καθιστᾶσιν); 5, 6, etc. ἔδραν (for ἔδραν); 9, 12, 13, etc. ηοικούντι (for οἰκούντι); 14 ηικριώματα (for ἰκριώματα); 14, etc. ηεν (for ἐν); 17, 19, 20, etc. ηοικῶν (for οἰκῶν); 22 ηεκ (for ἐκ); 24,27,28 etc. ηοικούντι (for οἰκούντι); 29, 35 ηεργαζομένοις (for ἐργαζομένοις); 37 ηοροφήν (for ὀροφήν); 44 ηεπί (for ἐπί); 45 ηεντός (for ἐντός); c *col. I*: 1 ηέχοντα (for ἔχοντα); 5 ηοπισθοφανῆ (for ὀπισθοφανῆ); 7 Ἄρμα for ἄρμα; 9 ηάγοντα (for ἄγοντα); 13 ηεπικρούοντα (for ἐπικρούοντα); 15 ηαλοπεκῆ[σι] (for ἄλωπεκῆσι); 18 ηανδρα (for ἄνδρα); 19 εἰστηκότα (for εἰστηκότα); 21 ἦ (for ἦ); 31 ηες (for ἐς); 36 ηαπό (for ἀπό); 49 ηεύδοξος for Εὐδοξος; c *col. II*: 2, 5 ηεις (for εἰς); 13 ηεπί (for ἐπί); 13 ηεπιστυλίω (for ἐπιστυλίω); 14 ηεντός (for ἐντός); 17 ηροσηαπέδομεν (for ὀροσηαπέδομεν); 27 ηερά (for ἐερά); 32 ηενεγράψαμεν (for ἐνεγράψαμεν); 52, 60 ηεχόμενος (for ἐχόμενος); 72 ηευμελί[δης] (for Εὐμελίδης). See also *IG I² 374 (408/7 B.C.)*: col. IX, 280 ηενεγράψαμεν; 282 ηεις; 285 ηοικῶντος, etc.

¹⁰³ The confusion of aspiration may be illustrated by the following examples: *IG I² 16 (465 B.C.)* line 6 ὅτι instead of ῥότι and line 24 ὀ instead of ῥο; *IG I² 17 (450 B.C.)* ὀρκῶσαι (for ῥορκῶσαι), 4 ὀπος (for ῥόπως) and *IG I² 19 (453 B.C.)* ὀρκον, ῥοι, ῥόπος; *IG I² 14-15 (440/39 B.C. = SEG X, 17 (450 B.C.))* ὀς (for ῥος), αἰρεθέντες (for ῥαιρεθέντες), ὀπος (= ῥόπως), ἕκαστος (= ῥέκαστος), ἐμέρας (= ῥεμέρας), ὅτι (= ῥότι); *SEG X, 14 (450 B.C.)* ηέχον (for ἔχων); *IG I² 41 (446/5 B.C.)* Ἐστιαίας and ἡεστιαίας, εἰάν δέ τις ἄγει, δέσθο ῥο ηαλός (= ἄλλος?); *SEG X, 35 (446/5 B.C.)* ὀρκῶσαι (for ῥορκῶσαι), ὀρκοτῶν (for ῥορκοτῶν) and ὀπος (for ῥόπως); ἡασσηρίται (*CIA I*, 234, 26, **444 B.C.**) and Ἄσσηρίται (*CIA I*, 229; 230; 231; 238; 242-244); ἡήσαισι (*CIA I*, 230, frg. 25, 6, **450 B.C.** and Ἡσαισι (*CIA I*, 226, 9, **454 B.C.**; 264, 20, **420 B.C.**); ηαριθμόν (*CIA I*, 167, 9, **412 B.C.**;) and ἀριθμόν (*CIA I*, 322, a, 97, **409 B.C.**; 228, 17, **452 B.C.**); ηἌβδηρα (*CIA I*, 242, 20, **438 B.C.**); ηἈβδηρίται (*CIA I*, 226, 5 (**454 B.C.**) as well as παρ' Ἀβδηρα (*CIA I*, 228, 16, **452 B.C.**); ηΑιραῖοι (*CIA I*, 230, 5, **450 B.C.**; 232, 6, **448 B.C.**; 233, 5, b, **447 B.C.** etc.) and Αιραῖοι (*CIA I*, 226, 6, b, **454 B.C.**; 240,7, **440 B.C.**; 238, 11 (Αιραιῆς), **442 B.C.**); ηΑισώνιοι (*CIA I*, 240, 49, **440 B.C.**) and Αισώνιοι (*CIA I*, 257, 53, **427/425 B.C.**); ηελπίδι (*CIA I*, 442, 8, **432 B.C.**) instead of ἐλπίδι; ηΕξιστράτη (W. Klein, *Die griechische Vasen mit Meistersignaturen*, Wien 1887, 33, **vii-vith c. B.C.**) and εὐξάμενος (*CIA IV*, b, 373, 202, **vith c. B.C.**); ηέχει (*CIA IV*, 373, b, beginning of **vith c. B.C.**) instead of ἔχει; καθέχει (i.e. aspirate: *CIA I*, 479, 3, c. **500 B.C.**) instead of κατέχει; ηέχον (*CIA IV*, 170, 7, **422 B.C.**; 166, 6, **413 B.C.**) instead of ἔχον; *SEG X*, 49 (**432/1 B.C.**) ὀσεμέραι for ῥοσεμέραι; *SEG X*, 63 (**430 B.C.**) εἰαυτόν for ηεαυτόν; *SEG X*, 67, 13 (**428/7 B.C.**) Ἐλληνοταμία instead of ηΕλληνοταμία.

¹⁰⁴ E.g. ηροσηηκέτω (*CIA I*, 40, 15, **428/423 B.C.**) and ηροσηῖκειν (same inscription, line 45); ητριηημιοπόδιος (*CIA I*, 322, a, 12, **409 B.C.**) and ητριηημιοπόδια (*CIA I*, 321, 15, before **409 B.C.**).

¹⁰⁵ See e.g. ληεων (*Ἐφημ. Ἀρχ.* 1886, p. 87, **vii-vith c. B.C.**); ηρος in *CIA* II, 1066 (bis, **ivth c. B.C.**; ληαβὸν λίθον (= λαβῶν λίθον), *IGA* 360, **vth c. B.C.?**; κηόρ(η) (*CIA* IV, b, 373, n. 97, b, **vii-vith c. B.C.**); μηεγάλου (*CIA* IV, b, 373, 208, **vith c. B.C.**).

¹⁰⁶ 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 οὔ and οὐ was one of stress (the acute), *Sophistici elenchi*, 177b, 35-178a, 4; see also 166b, 3-6.

¹⁰⁷ 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*)!

¹⁰⁸ 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 average of i-sounds per 100 vowels: Greek 19.2; English 32.4; German 19.6; French 13.6; Italian 20.2; and Dutch 21.8.

¹⁰⁹ E.g. ἄκμηνος (fasting from food) ἀκμηνός (full-grown); ἀκράτως (without being mixed) ἀκρατῶς (in uncontrolled manner); βάτος (bramble-bush) and βατός (verbal adjective: "that can be passed"); δέρειν (pres. inf.) δερεῖν (fut. inf.); δῆμος (people) δημός (fat); διαίρω (lift up) διαίρω (divide); δόκος (= δόκησις, opinion) δοκός (beam); ἔδρανον (seat) ἔδρανόν (neut. adj.: steady); εἶμι (go) εἶμί (I am); ἔλευσις (coming) Ἐλευσίς (Eleusis); ζήτω (Pres. ind. 3rd pers. sing of ζάω) ζητῶ (I seek); θεά (view) θεά (goddess); θερμη (warmth, heat) θερμή (adj.: warm); ἱερεία (priestess) ἱερεία (festival, sacrifice); ἴω (Pres. subj. of εἶμι) ἰώ (exclamation: alas!); κόνις (dust) κονίς (nit); νόμος (law) νομός (pasture, district); οἶνος (wine) οἶνός (= οἶνη: the ace on the dice); πότε (*when?*) and ποτέ (*ever*); τίς, τίνος, τίμι, τίνα (interrogative pronouns) τις, τινός, τινί, τινά (indefinite pronouns), as well as the verbs with Attic future, e.g. αἰσχύνω (present ind.) and αἰσχυνῶ (future ind.); κρίνω (pres. ind.) and κρινῶ (fut. ind.); μένω (pres. ind.) and μενῶ (fut. ind.), νέμω (pres. ind.) and νεμῶ (fut. ind.).

¹¹⁰ The sub-title of an important study by Anton Fridrichsen, in A. Fridrichsen, *Exegetical Writings. A Selection*, Translated and edited by Chrys C. Caragounis and Tord Fornberg (WUNT 76, Tübingen: J.C.B.Mohr (P. Siebeck) 1994) 21.

¹¹¹ The same principle should apply to the different dialects, Attic, Boeotian, Ionic, Aeolic, Doric, Thessalic, etc.

¹¹² Although on p. 142 he deplors the Henninian pronunciation practised in England as a hinder to e.g. learning Modern Greek, he nowhere argues for a change.

¹¹³ 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" (SEÅ 60 (1995) 115-27, Fs. for R. Kieffer, Eds. B. Holmberg and T. Fornberg) on a hitherto unsolved problem.

