1 Pseudo-Plutarch, De Musica

A History of Oral Tradition of Ancient Greek Music

The history of Ancient Greek music from Homer to the late 5th century is musical history without musical notation. Oral transmission nevertheless handed down famous melodies over centuries. Therefore, even late musicologists know many details about successful melodies of past times, especially the author of De Musica, attributed to Plutarch, together with his sources, as we shall see. The amount of examples of oral tradition in later sources allows us to develop a more complex conception of the transmission of ancient Greek poetry and music between orality and literacy.

1 Orality of musical education

While Greek poetry was handed down to posterity by writing from the 7th century onwards,1 musical education remained oral, as we can demonstrate easily by the famous Berlin school cup (see pl. 1.1) of Duris (490–480 BC): In the middle of the front side the teacher, an older man, is listening to a young boy, who is reciting a poem, the beginning of which we can see on a opened papyrus scroll, which the teacher keeps in his hands. The beginning:

ΜΟΙΣΑ ΜΟΙ / ΑΦΙ ΣΚΑΜΑΝΔΡΟΝ / ΕΥΡΩΝ ΑΡΧΟΜΑΙ / ΑΕΙΝΔΕΝ

shows, despite the orthographic flaws, that the painter is quoting hexameters, a mixing up of two different beginnings of an epic poem. And in the middle of the reverse side of the Duris cup (see pl. 1.2) the teacher, this time a young man with the stilus in the right hand and a diptychon in his lap, is correcting the writing exercises of the pupil, who is standing in front of him. On the wall, we see a closed diptychon and a papyrus scroll, the tools for transmission by writing. On the right edge of the front and reverse sides we see a slave with a walking stick, the παιδαγωγός, who had to accompany the youngsters into school.

1 See Pöhlmann 1994, pp. 10–17.

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As we see, reading and writing poetry were common at the beginning of the 5th century BC. The way of musical education was quite different: On the left of the front side of the Duris cup we see the teacher, who has just finished playing a piece on the lyre, as his lowered right hand indicates. The pupil in front of him, with both hands on the strings of his lyre, is repeating the piece he just has heard. And on the left of the reverse side of the cup, the teacher is playing on the auloi a piece for the pupil in front of him, who is listening attentively, as he has to learn this piece by heart (προμαϑεῖν). This way of oral teaching of music appears on a host of vase paintings, which show that musical education began already in the family.2

Eighty years later Aristophanes, in his Clouds, gives a vivid picture of the musical teaching in Athens about 423 BC and before, which can be read as a commentary on the scenes on the Duris cup from the advocate of the old education:3 “I will describe how the old education was managed ... First of all, it was a rule that not a sound should be heard from a boy, not a grunt; the boys of the neighbourhood had to walk through the streets to the music-master’s together and in good order ... Then again he would teach them to learn a song by heart (προμαϑεῖν) ... a song such as «Pallas the terrible, sacker of cities» (Παλλάδα περσέπολιν δεινὰν: Stesichorus or Lamprocles)4 or «A strain that sounds afar» (Τηλέπορόν τι βόαιμα λύραϛ: Kydias or Kydidas),5 singing it in the mode their fathers handed down (ἐντειναμένους τὴν ἀρμονίαν ἣν οἱ πατέρες παρέδωκαν). And if any of them played the clown or introduced some convolutions such as the moderns use (οἳ νῦν), those annoying twists (καμπή; see below p. 27f.) in the style of Phrynis, he was thrashed hard and often for disfiguring the music”. It is interesting that Aristophanes here quotes ancient poetry and music and points to its transmission by the forefathers, and to the oral teaching, which required that songs should be learned by heart.

2 Ancient Greek notation

At a date not earlier than the 5th century BC, auloi-players in Argos had invented a musical notation (see instrumental notation in Appendix 1). In the nucleus of which (nr. 19–52) there are two signs, which belong exclusively to an archaic alphabet of the Argolis (nr. 19 = ypsilon, nr. 43 = beta, 525–425 BC), while the

2 See Beck 1975.
3 Aristophanes, Clouds 961–972, translation Sommerstein.
4 See Dover 1968, p. 215 n. 967.
5 See Dover 1968, p. 215 n. 967.
rest can be reconciled with it.\(^6\) About 400 BC this notation was adapted to the use of singers by transcribing the system into the modern Ionian alphabet (see vocal notation in Appendix 1). Extended by several steps to the range from low E to g\(^2\), the system of ancient notation remained until imperial times the prerogative of professional musicians, the ‘technitai’, who used the notation for composing and writing down music and for the preservation of their stock pieces. However, the musical notation never became a component of the enkyklios paideia, the ars liberales. Musical education remained oral until imperial times: Although singing from musical scores was familiar to the Roman orator Fabius Quintilianus, he excludes this technique from the education of the future orator: nec moduletur aut musicis notis cantica excipiatur (Institutio oratoria 1,12,14).

Papyri with musical notation begin to appear in the 3\(^{rd}\) century BC, in Ptolemaic times (see Appendix 2). But most of them belong to imperial times. There are four inscriptions with musical notation, the most famous of which are the ‘Delphic Hymns’ to Apollon of 128 BC and 106 BC, pieces by the ‘technitai’ Athenaios and Limenios. Three Prooimia for two Citharodic Nomoi by Mesomedes, poet and composer at the court of Hadrian, are preserved in medieval manuscripts. Taking all together, we have today 64 fragments of ancient Greek music.\(^7\) The first musicologist who uses ancient Greek notation for the illustration of musical facts is Aristides Quintilianus (3. century AD) in the first book of his De Musica. Later authors like Gaudentius and Alypius reproduce and explain the system of ancient Greek notation, while the Anonymi Böllmann and Boethius use it for demonstration. In contrast to them, Pseudo-Plutarch in his De Musica, a treatise not much older than Aristides Quintilianus, ignores ancient Greek notation altogether. This puzzling fact may be explained by the sources of De Musica (see Appendix 2) and the purpose of the compiler of this musical history.

### 3 Sources of Pseudo-Plutarch, De Musica

About 500 AD, Ptolemy’s Harmonics, Pseudo-Plutarch’s De Musica and Porphyry’s Commentary on Ptolemy were assembled into a codex,\(^8\) which is the archetypus of Pseudo-Plutarch, De Musica. This treatise appears in the manu-

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\(^7\) DAGM and the new Louvre Carcinus; see Belis 2004 and West 2007.

scripts with the title Πλουτάρχου περὶ μουσικῆς, except in the collection of Plutarch’s works by Maximus Planudes, where the title of the treatise is simply Περὶ μουσικῆς. On the other hand, the older manuscripts of Plutarch before the collection of Planudes and the so called Catalogue of Lamprias do not contain De Musica, which calls in question its authenticity. Observations concerning style and content suggest that De Musica was a compilation, written in the time of the Antonines, around the end of the 2nd century AD, the author of which used Plutarch’s name in order to gain publicity. For this reason De Musica found its way into the aforesaid codex of Ptolemy and Porphyry as a treatise of the famous Plutarch of Chaeronea.

In 2005 a greek philologist, A. G. Siamakis, tried another way in dealing with the paternity of De Musica. He was the first to attribute the treatise to the head of the neoplatonic school in Athens, Plutarch the son of Nestorius, of Athens (350–433), who wrote commentaries on Aristotle’s De anima and Plato’s Gorgias, Phaidon and Parmenides, which are not preserved, but may be traced in the works of Plutarch’s successor Syrianus and his last pupil Proclus. There is no hint of musicological treatises by Plutarch of Athens. Nevertheless, Siamakis attributed, together with De Musica, ten treatises of Plutarch of Chaironeia to Plutarch of Athens, but without convincing arguments. If the paternity of Plutarch of Athens for De Musica could be proved, it would be quite natural that the treatise was later attributed to the much better known homonym of Chaironeia. But as things are, we still have to believe De Musica to be a skillful pastiche on the famous name of Plutarch of Chaironeia, which is two centuries older than Plutarch of Athens.

Laserre tried to find intermediary sources of De Musica in three treatises on music by Dionysius of Halicarnassus the Younger, a contemporary of Hadrian, Ptolemy and Porphyry.

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9 Laserre 1994, pp. 99, 111 (for the title), 132 (for the subscriptio).
10 Ambrosianus 859 (about 1295 AD) and its apographa.
13 Ziegler 1951, pp. 696–702; Pöhlmann 2007, p. 44.
16 1 De liberis educandis; 15 Regum et imperatorum apophthegmata; 42 De fato; 53 De tribus reipublicae generibus; 58 PlacitaPhilosophorum; 64 Bruta ratione uti (Gryllus); 68 De animae procreatione in Timaeo; 76 De musica; 77 De libidine et aegritudine; 78 Parsne an facultas animisit vita passiva. Nr. 1, 15, 42, 58, 76, 78 are considered today to be spurious.
a suggestion which cannot be verified, as the relevant treatises are not preserved. The first certain source of De Musica is Plutarch himself, as the compiler of De Musica used persons and quotations of Plutarch in order to give his treatise a Plutarchean flavour. Between Plutarch of Chaironeia and the sources of the 4th and 3rd century BC there are four authors which the compiler quotes in each case only for an irrelevant detail.

As the main sources of De Musica there remain Heraclides Ponticus (388–310) and Aristoxenus. The treatise of Heraclides used is his ‘Collection on Music’ (Συναγωγὴ τῶν ἐν μουσικῇ), which draws on inscriptions and on a treatise of Glaucus of Rhegium (about 400 BC), ‘On ancient Poets and Musicians’ (Περὶ ἄρχαίων ποιητῶν καὶ μουσικῶν). The treatise of Aristoxenus used in De Musica, perhaps his ‘On Music and Musicians’ (Περὶ μουσικῆς καὶ μουσικῶν), had a more general scope. Aristoxenus quotes older musicologists, the ‘Mousikoi’ and ‘Harmonikoi’. Heraclides is used in De Musica chapter 3–10, Aristoxenus in De Musica chapter 11–21 and 26–44. Besides, Plato’s Timaeus 36, Aristotle, ‘On the Timaeus and Archytas’ are quoted in De Musica chapter 22–25. As this section treats only the numerical theory of musical consonances, it has no bearing on our subject. In De Musica chapter 30 there is a long quotation from the comedy Chiron of Pherecrates, which disrupts the context. But after this, at the beginning of chapter 31, Aristoxenus is named as source again. The introduction of De Musica belongs to our compiler himself.

18 Laserre 1954, pp. 102–104.
19 e.g. De Musica 1, 1131 B = Plutarch, Phocion 10 and 19 (an utterance of Phocion’s wife); De Musica 2, 1131 C and passim = Plutarch, Quaestiones convivales 5, 5 (The rich Onesicrates, the host of De Musica = the physician Onesicrates of Chaironeia, who calls for a banquet in honour of Plutarch).
20 Alexander Polyhistor: De Musica 5, 1132 EF (about Hyagnis, Marsyas and Olympos); Anticleides and Istrios, De Musica 14, 1136 A (about a statue of Apollon in Delos); Dionysius Jambus, De Musica 15, 1136 C (on some Torebus, inventor of the lydian mode).
21 The fragments: Wehrli 1953.
22 The fragments: FGH II, p. 23 f. See Barker 2007, pp. 84–86.
23 The fragments: Wehrli 1954. Title: De Musica 15, 36 C: ἐν τῷ πρῶτῳ περὶ μουσικῆς; 17, 36 D: ἐν τῷ δευτέρῳ τῶν μουσικῶν.
24 De Musica 3, 31 F (γραμματικοί and ἄρμονικοι); 10, 34 D (ἄρμονικοι); 11, 34 F (μουσικοί) and 16, 36 D (with the emendation ἐν δὲ τοῖς ἱστορικοῖς <ὑπομνήματι> οἱ ἄρμονικοί ...).
26 PCG fr. 155.
4 Aristoxenus and the Greek musical notation

The main purpose of Aristoxenos in Ps.Plutarch De Musica is to extol the moral and musical qualities of music and musicians of old age (οἱ παλαιοὶ) from Olympos to Pindarus to the disadvantage of modern musicians (οἱ νῦν), who were flourishing in the ‘New Dithyrambus’ from Phrynis to Philexenus and in the late tragedy of Euripides and his contemporaries. In doing this he brings forward, as we shall see, such substantial observations on the style of the musicians of the old and and new eras, that we have to consider wether Aristoxenos could have used musical scores, especially as he is the first to mention musical notation, which is aptly called by himself παρασημαντική, setting signs alongside the poetical text (τὸ παρασημαίνεσϑαι τὰ μέλη).

In the relevant chapters 39–43 of his Harmonics Aristoxenex excludes the knowledge of the παρασημαντική together with the knowledge of aulos-playing from the science of harmonics, which he is just now going to map out. He holds that the art (τέχνη) of melodic notation is not the goal of the science (ἐπιστήμη) of harmonics, but not even a part of it, just as the art (τέχνη) of writing down different meters is not a part of the science (ἐπιστήμη) of metrics. Aristoxenus is going to develop this concept in De Musica chapter 33, 43 CD, where he marks off the science of rhythmics (ῥυϑμικὴ ἐπιστήμη), instead of the science of metrics (μετρική). Perhaps the art (τέχνη) of writing down different meters (γράψασϑαι τῶν μέτρων ἕκαστον), which Aristoxenus excludes, together with the art of notation (τέχνη παρασημαντικῆς), can be understood as a hint at the beginnings of rhythmical notation by professional musicians: in any case, one of the oldest Ptolemaic papyri with notation, the ‘Orestes Fragment’, already uses the arsis point and the disem sign for metrically long syllables.

A much stronger argument of Aristoxenus against the παρασημαντική is its lack of precision, which indeed prohibits the rendering of the subtleties of mu-

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27 De Musica 15, 36 B; 18, 37 A (Olympos, Terpander); 19, 37 B (spondeiazon tropos); 20, 37 (Aeschylus, Phrynichus); 20, 37 E – 38 A (conservative composers of the 4th century: Pankrates, following the style of Pindar and Simonides, Tyrtaios, Andreas, Thrasylus, Telephanes); 21, 38 B (variety of rhythm versus variety of melody); 26, 40 B; 30, 41 D; 32, 42 E; 34, 43 B; 37, 44 E.

28 De Musica 6, 33 B; 12, 35 D; 15, 36 B; 20, 37 F; 21, 38 A; 21, 38 B (twice); 26, 40 C; 29, 41 B; 38, 45 A. The νῦν in 7, 33 E and 11, 35 B has no polemic significance.

29 Aristoxenos Harmonics 2, 39 Mb; 49,2 da Rios.


31 Aristoxenos Harmonics 2, 39 Mb, 49,7–9 da Rios: οὐ γὰρ ὅτι πέρας τῆς ἄρμονικῆς ἐπιστήμης ἔστιν ἡ παρασημαντικῆ, ἀλλ’ οὐδὲ μέρος οὐδὲν, εἰ μὴ καὶ τῆς μετρικῆς τὸ γράψασϑαι τῶν μέτρων ἔκαστον.

32 DAGM nr. 3.
This is demonstrated by two examples: In the first of them, Harmonics chapter 39/40, Aristoxenos points to the fact that the παρασημαντική does not have specific signs for the different melodic steps in a tetrachord, which are produced by the enharmonic, chromatic or diatonic attunements.33 This defect can be demonstrated by examining the παρασημαντική of the steps of every tetrachord, for example e – a (nr. 22 – 31 in Appendix 1): The notation transmitted by Alypius (3rd century AD) still gives for the second step only one sign, nr. 23, no matter if the step is enharmonic (f\(\downarrow\)), chromatic (f) or diatonic (f). And for the third step the notation gives the same sign, nr. 24, for the enharmonic (f) and chromatic (f\(\#\)) attunement, another sign, nr. 28 (g), for the diatonic attunement. These shortcomings are the inheritance from the musical notation which Aristoxenus describes as παρασημαντική. Altogether this notation provides only five signs (nr. 22, 23, 24, 28, 31) for eight differently attuned steps, regardless of the fact that Aristoxenus describes in addition four different attunements of the chromatic and three different attunements of the diatonic genus.

Evidently the παρασημαντική is only an approximation to the manifold musical realities of ancient Greek music. Nevertheless, one of the alleged flaws of the παρασημαντική, the fact that there is no discrimination of the enharmonic, chromatic and diatonic second step of the tetrachord, mirrors an older musical reality: Archytas of Tarentum (after 400 BC) devised an attunement of the tetrachord which gives its second step, be it enharmonic, chromatic or diatonic, the same value, 28/27 or 63 cents.34 This might give an additional clue for the dating of the παρασημαντική into the second half of the 5th century BC.

The first example of Aristoxenus for the shortcomings of παρασημαντική could be understood, as we have seen, on the basis of the notation transmitted by Alypius. The general sense of the second example of Aristoxenus in Harmonics chapter 40 is clear too: Aristoxenus complains that the παρασημαντική is not able to distinguish tetrachords, which are identical, but have different functions (δύναμιϛ).35 But the middle of this sentence is corrupt and has been emended in various ways.36 West, approving the position of Macran and Pöhlmann, con-

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35 Aristoxenos, Harmonics 2, 40 Mb, 50,4 f. da Rios: τὸν αὐτὸν δὲ λόγον καὶ περὶ τῶν δυνάμεων ἐροῦμεν ὅς αἱ τῶν τετραχώρδων φύσει ποιοῦσιν ... τὰς δὲ τῶν δυνάμεων διαφορὰς οὐ διορίζει τὰ σημεία.
36 Aristoxenus, Harmonics 2, 40; 50,6 f. da Rios: τὸ <μέλοϛ Ruelle> γὰρ ὑπερβολάιας <νῆτης Laloy> καὶ νήτης καὶ <τὸ Laloy> μέσης καὶ ὑπάτης (scil. τετράχορδον Pöhlmann) τοῖϛ αὐτοῖϛ γράφεται σημεῖοι (Pöhlmann; τῷ αὐτῷ ... σημεῖω codd.).
nects the παρασημαντική, which is criticized by Aristoxenus, with the system of Alypius. Barker on the other hand, while expressing doubts, circumspectly reviewed the possibilities of understanding the text. But with emendations, the second example can be connected with the system of Alypius too, as an example may show:

The tetrachord e¹ – a¹ has in the hypolydian key the function (δύναμις) of Tetrachordon hyperbolaion, but in the lydian key the function of Tetrachordon neton. Regardless of this, its notes are the same (nrs. 43, 44, 45, 49, 52). And the tetrachord e – a has in the Hypolydian key the function of Tetrachordon meson, but in the Lydian key the function of Tetrachordon hypaton; again, its notes are the same (nrs. 22, 23, 24, 28, 31).

Fortunately, these textual problems are not decisive for our main question, as Aristoxenus, at the end of chapter 40 of his Harmonics, very clearly sums up his opinion about the παρασημαντική, through which “no knowledge is forthcoming of the functions (δύναμις) of either the tetrachords or the notes, or of the distinctions between the genera, or, to put it briefly, of the distinctions between the σύνθετον-ἀσύνθετον, of the ἁπλοῦν-μετάβολον and of the τρόποι μελοποιιῶν or, in a word, of anything else at all”.

The objections of Aristoxenus against the notation’s failure to distinguish the functions of tetrachords and notes and the genera themselves had been already illustrated by his two earlier examples. After that he adds three more objections, against the absence of distinctions in the παρασημαντική between composite and in composite intervals, between the simple and the modulating scales and between styles of melodic composition, which we shall illustrate at once by examples from De Musica.

5 Oral transmission of music attested by Aristoxenus

In spite of all his tendentious exaggerations, it is obvious that Aristoxenus knew the παρασημαντική thoroughly. But as the notation indeed could not reveal the subtleties of music, Aristoxenus had to draw on oral tradition, as we shall see at once, beginning with his famous passages about the Spondeion (De Musica chapter 11, 34 F – 35 B) of Olympos, the music of which has been recovered admirably by Andrew Barker.

38 Barker 1989, pp. 156 f. and nr. 46.
The Spondeion is a pentatonic scale, which exists in a normal version \((e \ f \ a \ h \ c^1)\) and a stretched version \((\sigmaπονδειασμός \ συντονώτερος: \ e \ f \ a \ h \ c^1↑)\). It was attributed by the source of Aristoxenos, the μουσικοί, to Olympos, together with the invention of the enharmonic genus. Its characteristics are the undivided semitone \(e – f\), which is qualified as \(άσύνθετος\), in contrast to the divided semitone \(e – e↑ – f\) \((σύνθετος)\) of the developed enharmonic, and the enharmonic major third \(f – a\), which is undivided \((άσύνθετος)\) too. At the end of this quotation Aristoxenus adds a precious commentary: “For the enharmonic pycnon [scil. the divided semitone] used nowadays in the middle tetrachord is apparently not present in the music of this composer [scil. Olympos]. This can readily be understood by anyone, who listens to the aulos being played in the ancient style, where the semitone in the middle tetrachord is also meant to be incomposite \((άσύνθετος)\).”\(^{41}\)

This commentary tells us a lot: Evidently there were in Aristoxenus’ days aulos players who played in the archaic style of Olympos, the subtleties of which could be detected by listening, but not by reading scores: Indeed, the παρασημαντική does not distinguish composite and incomposite intervals, as Aristoxenus had stressed (s. above p. 7), a fact that an example might show: The παρασημαντική provides for the incomposite interval \(e – f\) of the old enharmonic of Olympos the signs nr. 22 and 24, for the composite interval \(e – f\) of the developed enharmonic the same signs nr. 22 and 24 with the complement of the sign nr. 23 for the intermediary quartetone \(e↑\).

Fortunately we are able to show that the tenacity of oral transmission of music was able to keep the memory of the old pentatonic scales of Olympos alive in Delphi until the end of the 2nd century: In 128 BC a certain Athenaios, when composing the traditional Hymn on Apollon, the πάτριος Παιάν, for the Pythais in Delphi, used in two sections of his Paian\(^{42}\) two pentatonic trichords, namely \(<d>\ e\ φ\ g\) and \(g\ a\ ϕ\ c^1\), thus giving these sections an archaizing flavour, in strong contrast to the rich chromaticism of the other sections. And at the Pythais of 106 BC, a certain Limenios of Athens, when composing his ‘Paian and Prosodion on Apollon’, used in three sections of his hymn\(^{43}\) two pentatonic trichords, namely \(e\ f\ a\) and \(e↑\ f↑\ a↑\) and in two sections the pentatonic trichord \(a\ b↑\ d↑\).\(^{44}\)

\(^{41}\) De Musica 11, 35 B: ῥᾴδιον δ᾽ ἐστὶ συνιδεῖν, ἐάν τιϛ ἀρχαϊκῶϛ τινοϛ αὐλοῦντοϛ ἀκούσῃ· ἀσύνθετον γὰρ βούλεται εἶναι καὶ τὸ ἐν ταῖς μέσαις ἡμιτόνιον (Translation Barker).

\(^{42}\) Sections 1, 4, 5: see DAGM nr. 20, 1–8; 17–24.

\(^{43}\) Sections 2/3 and 5: see DAGM nr. 21, 8–14; 18–21.

\(^{44}\) Sections 1 and 10: DAGM nr. 21, 1–7; 34–40.
Perhaps we should remember that Aristoxenus in De Musica chapter 15 attributes to Olympos too the introduction of solo playing on the aulos (αὐλητική) in the Delphic musical contests, where Olympos presented a lamentation (ἐπικήδειον) in the Lydian harmonia about the dragon Python, who had been killed by Apollon. The battle of Apollon and the dragon was the kernel of the πάτριος Παιάν in Delphi. A mourning Nomos of Olympos was still known to Aristophanes, as the comic author is able to begin his Knights (424 BC) with a parody of this piece. The presence of melodies in the style of Olympos in the 4/3th century BC is testified by Aristoxenus himself, who in chapter 29 of De Musica, after having summed up the inventions of Olympos, namely the old enharmonic in his Spondeion, the prosodiacus (x – o – x – –) in his Nomos of Ares, the choreios (– o – x), in his Metroia for the Mother Goddess, and the bacchius (o – –), declares: “Every melody of the ancient compositions attests that this is the case”.

The spondeiazon tropos (De Musica chapter 19, 37 BC) is a later modification of the Spondeion for voice and accompaniment by aulos. The notes used by the voice are e e↑ f a h c1. With the exception of the enharmonic e↑, which splits the semitone, the scale resembles the scale of the normal Spondeion. The accompaniment also used h↑ and e1, completing the vocal scale to a full enharmonic octave, and d1. These steps could be used according to Aristoxenus in the accompaniment as concords or discords.

Andrew Barker has pointed to the fact that the spondeiazon tropos is not described as a composition, but as a ‘manner or style’ of composition, recalling the remarks of Aristoxenus about people accustomed to listen to pieces played in the first and second of the ancient, tentatively identifying these ‘tropoi’ with the Spondeion of Olympos and the spondeiazon tropos themselves. Evidently, there were more than two such ‘tropoi’. We are told by De Musica about ‘tropoi’ of Terpander, of Olympos, of Pindar and Simonides, Antigeneidas

45 De Musica 15, 36 (= Aristoxenos Fr. 80 Wehrli): Ὑλυμπον γὰρ πρῶτον Ἀριστόξενος ... ἐπὶ τῷ Πύθωνι φησὶ ἐπικήδειον αὐλήσαι λυστι.
46 Aristophanes Knights 8–10: ... δεύρο δὴ πρόσελϑ᾽ ἵνα / ξυναυλίαν κλαυσῶμεν Οὐλύμπου νόμον / μυμυ μυμυ μυμυ μυμυ μυμυ μυμυ.
47 De Musica 29, 41 B/C: δηλοῖ δ' ἐκαστόν τῶν ἀρχαίων μελῶν ὃτι ταῦτ' οὕτως ἔχει. For the melody of the Metroia see De Musica 19, 37 D.
48 Aristoxenus Harmonics 23, 9–11: συνειδησμένοι τῶν ἀρχαϊκῶν τρόπων τοῖς δὲ πρῶτοις καὶ τοῖς δευτέροις.
49 De Musica 12, 35 C.
50 De Musica 18, 37 B.
51 De Musica 20, 37 F; 31, 42 C.
Oral transmission of music attested by Aristoxenus

and Dorion, Timotheus, Philoxenus and about ‘ancient tropoi’. The case of these ‘tropoi’ recalls Aristoxenus’ catalogue of the shortcomings of παρασημαντική (see above p. 7 f.) which is not able to distinguish the style of compositions (τοὺς τῶν μελοποιών τρόπους). Of course the subtle differences between these ‘tropoi’ could only be grasped by listening.

The last item in his aforesaid catalogue of flaws is Aristoxenus’ complaint that the παρασημαντική is not able to distinguish scales without modulation from modulating scales (τὸ ἀπλοῦν καὶ μεταβολὴν ἔχον). This can be connected with the judgement of Aristoxenus in De Musica chapter 18 about the melodies of Olympos, Terpander and their followers: “The compositions of Olympos and Terpander and of all those who use the same style (τρόποϛ) give evidence of this. Though they involve three notes only, and are simple, they are so much better than those that are complex and use many notes that no one can imitate the style of Olympos, and all those who use many notes and many tropoi are inferior to him”. The three notes (τρίχορδα), opposed to many notes (πολύχορδα), point to the pentatonic trichord of Olympos (e f a). The simplicity (ἁπλὰ), opposed to complexity (ποικília) and diversity of modes (τρόποι) points to the old melodies without modulation.

Again we can understand the objections of Aristoxenus, as the παρασημαντική does not provide special signs for the modulating tetrachord of every key, the ‘tetrachordon synemmenon’, but simply uses the signs of the key which is one fourth higher, for example in the case of the Hypolydian key the signs nr. 31, 32, 33, 37, 40 of the Lydian key. Besides we can again infer that Aristoxenus could still hear melodies attributed to Olympos, Terpander and their followers and derive from his perceptions insights about the elements of ancient music. The same holds good for his sources: The μουσικοί and ἁρμονικοί too had to rely on oral transmission of ancient music, which might have been quite reliable, as austere teaching in family and school played a significant part in it (see above p. 2).

It seems obvious that the παρασημαντική was not relevant for the transmission of Greek music from the 7th to the early 5th century. But the same is true for

52 De Musica 21, 38 A.
53 De Musica 21, 38 B.
54 De Musica 31, 42 C.
55 De Musica 32, 42 C.
56 De Musica 18, 37 B: μαρτυρεῖ γοῦν τὰ Ὁλύμπου τε καὶ Τερπάνδρου ποιήματα καὶ τὰ τῶν τουτοῖς ὀμοιοτρόπων πάντων· τρίχορδα γάρ ὄντα καὶ ἁπλὰ, διαφέρει τῶν ποικίλων καὶ πολυχόρδων, ὡς μηδένα δύνασθαι μιμήσασθαι τὸν Ὁλύμπου τρόπον, ὑστεριζέιν δὲ τοῦ<του> τοὺς ἐν τῷ πολυχόρδῳ τε καὶ πολυτρόπῳ καταγιγομένους (Translation Barker).
the melodies of musicians which were contemporaries of Aristoxenuses or their predecessors. When Aristoxenuses declares in chapter 20 of De Musica that tragedy from Aeschylus and Phrynichus until his own days never used the chromatic genus, but only the enharmonic genus, he must rely on oral perception, as the musical notation does not distinguish the enharmonic from the chromatic (see above p. 7).\textsuperscript{57} The same is true of the otherwise unknown composer Pankrates, who, according to Aristoxenuses, avoided the chromatic genus in order to follow the ‘tropoi’ of Pindar and Simonides.\textsuperscript{58} Other archaizing musicians of the 4th century BC, Tyrtaios of Mantinea, Andreas of Corinthus, Thrasyllus of Phleious and many others avoided intentionally, according to Aristoxenuses,\textsuperscript{59} the chromatic genus, modulations, the use of many notes and the other achievements of the New Music, which points again to oral perception. This applies too to the contemporary New Music: Aristoxenuses, when commenting on the decline of the enharmonic tuning in De Musica chapter 38, complains about the perverse tunings of the modernists, who flatten not only the movable notes of the scale, namely the Lichanos, Paranete, Trite, Parhypate, but flatten sometimes some of the outer notes of the tetrachord, so that nearly all intervals are irrational (ἄλογοι). According to Aristoxenuses such effects could be grasped only by oral perception: “as anyone capable of perceiving such things (αἰσϑάνεσϑαι) can clearly detect”.\textsuperscript{60}

The insights of Aristoxenuses about old and new music were not limited to mere theoretical observations, but extended to the real interpretation of music, where the question of the appropriate use of the musical resources (τὸ οἰκεῖον) was of crucial significance. This is exemplified in De Musica chapter 33 by two examples: Aristoxenuses knows a dithyramb Mysoib by the poet Philoxenuses (435/34–380/79), the beginning of which was in the Hypodorian key (4♭), the end in the Dorian key (5♭), and its middle in the Hypophrygian (2♭) and Phrygian (3♭) keys.\textsuperscript{61} Aristoxenuses points to the fact that the science of Harmonics alone is not able to decide if the poet choose appropriately the respective keys: “This is the task of the practitioner of art” (τοῦτο τὸ τεχνίτου ἔργον). Of course the παρασημαντική was able to identify the respective keys, but not their appropriateness.

\textsuperscript{57} De Musica 20, 37 D E. Plutarch (Quaest. conv.3,1,1) attributes the introduction of the chromatic genus to the modernist Agathon (late fifth century BC).

\textsuperscript{58} De Musica 20, 37 E.

\textsuperscript{59} De Musica 21, 37 F – 38 A.

\textsuperscript{60} De Musica 39, 44 CD: ὡς ἄστι δήλον τοῖς αἰσϑάνεσϑαι τῶν τοιοῦτων δυναμένοις (Translation Barker).

\textsuperscript{61} De Musica 33, 42 EF. This dithyrambus is mentioned too in Aristotle Politics 8,42 b 7–12. See West 1992, p. 364 f.
We find still more evidence for oral perception in the next example: Commenting on the Nomos of Athena of Olympos Aristoxenus declares that the specific ethos of the beginning (ἀναπείρα) of this piece consists in the combination of the enharmonic genus, the Phrygian tonos and the so called paion epibatos, a slowed version (– – – – –) of the ordinary paeon (ᴗ ᴗ ᴗ ᴗ ᴗ). But in the middle of this Nomos Olympos changed the ethos by moving from cretic to trochaic rhythm (γενομένου τροχαίου ἀντὶ παίωνος), while the melodic system stayed the same. A rhythmic modulation from cretics to trochaics is very common in Aristophanes and in folk music, as West and Baud-Bovy have demonstrated. Here it gave the middle of the Nomos, the so called ἁρμονία, as Aristoxenus points out, a special flavour. Andrew Barker, by combining chapter 33 with chapter 7 of De Musica, whose source is Glaucus of Regium (see below p.15), supposed, as we have heard, that the Nomos of Athena had at least one more section, which modulated into the dactylo-epitritic rhythm (δακτυλικὸν εἶδος). As a consequence, the Nomos of Athena acquired an alternative name, Nomos Harmateios (Nomos of the racing car), which was attributed to Olympos too.

Taking all the remarks of Aristoxenus together, we get the impression that still in the fourth and third century BC. Old Music was transmitted orally and appreciated perhaps by the majority. Otherwise the fierce dispute between the adherents of Old versus New Music could not be understood. This holds good too for Heraclides Ponticus and his source, Glaucus of Rhegium, whom I shall consider in the final section of my paper.

6 Heraclides Ponticus and Glaucus of Regium

Heraclides Ponticus (388–310), a pupil and colleague of Plato, attempts in his ‘Collection about Music’ (συναγωγὴ τῶν ἐν μουσικῇ) a history of music, which leads from mythical inventors of musical genres (Amphion, Linos, Anthes, Pieros, Philammon) and a group of Homeric figures, transposed into history (Thamyris, Demodokos, Phemios) to the first historical personalities, Terpander, the inventor of the citharodic nomos, and Olympos, the inventor of the Auletic Nomos. Alleged succession of father and son (Philammon – Thamyris, Hyagnis – Marsyas) or teacher and pupil (Marsyas – Olympos) helped to bring some chro-

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62 De Musica 33, 43 BC.
63 West 1982, pp. 55f. The paion epibatos, which has the arsis on the second and the fifth length, appears in the Berlin fragment, nr. 52 DAGM.
nology into the host of inventors. Inferences from known to unknown, for example from the style of Stesichorus to the style of the Homeric singers of tales,\(^{65}\) connect the mythic past with the beginnings of history. The development of music follows the Peripatetic pattern of beginnings (ἀρχή), rise (αὔξησιϛ), summit (ἀκμή) and decline (φϑορά), which is common in Greek historiography of the 4\(^{th}\) century BC. Sources of Heraclides included inscriptions,\(^{66}\) quotations of poets,\(^{67}\) and unnamed authorities.\(^{68}\) Evidently Heraclides constructed his history mainly by connecting written sources. Only once does he use a song, which can still be heard, a Hyporchema of Xenodamas, as an argument.\(^{69}\)

One of his sources, Glaucus of Regium, seems to have applied another way of research, as Andrew Barker has seen.\(^{70}\) As Glaucus used a set of tuned discs, which was invented by the Pythagorean Hippasos of Metapontion (about 500 BC), for music making, he must be later than Hippasos. His trick with the discs suggested a proverb (Γλαύκου τέχνη), which is quoted in Plato’s Phaedo\(^{71}\) and might have been current already about 400 BC. This brings the date of Glaucus down to the end of the 5\(^{th}\) century BC.

The ‘History of Ancient Poets and Musicians’ (Περὶ τῶν ἀρχαίων ποιητῶν τε καὶ μουσικῶν) of Glaucus mentions, as far as we can see, only musicians older than 500 BC. It is therefore nearly self-evident that Glaucus had to draw on the oral transmission of music which was still heard and discussed in his time, as the παρασημαντική came too late for him, and there is not the slightest hint of the possibility that music of older times was later transcribed in musical notation.

The first quotation of Glaucus by Heraclides in De Musica chapter 4/5\(^{72}\) tries to establish a chronological frame by using the notion of exemplar and imitation: Orpheus, the inventor of the Lesbian Citharody, had no model, as there

\(^{65}\) *De Musica* 3, 32 B.

\(^{66}\) *De Musica* 3, 32 A (inscription of Sikyon, list of poets and musicians dated by contemporary priestesses in Argos), 4, 32 E (Terpander: list of victors of the Pythian contests); 5,33 B (Clonas, inventor of some *nomoi*); 8, 34 A (inscription about the musical contest at the Panathenaea; Sakadas, three times victor at the Pythian contest), 8, 34 B (Inscription of Sikyon: Clonas, inventor of the *nomos trimeres*).

\(^{67}\) See Ziegler 1966, p. 38.

\(^{68}\) e.g. *De Musica* 5, 33 A: Ἄρκαδεϛ, Βοιωτοί, ἄλλοι δὲ τινεϛ; 6, 33 D: Ἥνωι; 7, 33: Ε ἄλλοι; τινεϛ ... οὶ δ’ οὗ; 7, 33 F: τινεϛ; 9, 34 C: ἄλλοι; 10, 34 D: ἀρμονικοί; 10, 34 E: τιναϛ.

\(^{69}\) *De Musica* 11, 34 C: Ἑκανόδαμου ἀπομνημονεύεται ἄσμα δ ἐστὶ φανερώς ὑπόρχημα.

\(^{70}\) Barker 2007, pp. 84–86.

\(^{71}\) *Phaedo* 108 D 4, explained by a scholion ad l. = Aristoxenus fr. 90 Wehrli.

\(^{72}\) *De Musica* 4/5, 32 E – 33 A, without the quotation of Alexander Polyhistor (FGrH 273 F 77) at the beginning of *De Musica* chapter 5 (‘Ἄλεξανδρος ... Μαρσύουν, εἰτ’ Ὄλυμπουν), which is, according to Barker 2007, p. 85 n. 2, an intruded marginal gloss.
was nothing except the composers of music for the aulos, with which Orphic Music had nothing in common: οὐδεὶς γὰρ πώ ἐγένετο, εἰ μὴ οἱ τῶν αὐλητικῶν [Westphal; αὐλωδικῶν codd.] ποιηταῖ. τούτοις δὲ κατ᾽ οὖθὲν τὸ Ὄρφικὸν ἔργον ἔοικε. Evidently Glaucus had a clear idea of contemporary Orphic hymns (Ὅρφικὸν ἔργον) and their musical style, which he pushed back into the unknown past.

Terpander, the inventor of the Citharodic Nomos, imitated the hexameters of Homer together with the music of Orpheus: ἐξηλωκέναι δὲ τὸν Τέρπανδρον Ὄμηρον μὲν τὰ ἔπη, Ὅρφεως δὲ τὰ μέλη. This points to sung hexameters attributed to Terpander in the time of Glaucus. Barker pointed aptly to the fact that Glaucus, by combining influences from different sides, follows a quite sophisticated method, compared with the simple succession of teacher and pupil of Heraclides. Clonas of Thebes or Tegea, to whom the invention of the Aulodic Nomos is attributed, comes next and after him Archilochus, who is treated by Glaucus as a chronological marker, as he could be dated by his mention of Gyges.

With his next quotation of Glaucus (De Musica 7, 33E F) Heraclides attributes the Nomos of the racing cars (Nomos Harmateios) to Olympos. This Nomos was used by Stesichorus of Himera, who did not imitate (ἐμιμήσατο) Orpheus or Terpander or Archilochus or Thaletas, but Olympos. In addition, he used the dactylo-epitritic rhythm (κατὰ δάκτυλον εἶδος), which was a sign of the Nomos Orthios. Again we find the combination of two influences in the thinking of Glaucus – unless the Nomos Harmateios was identical with the Nomos of Athena, as Andrew Barker has suggested (see above p. 13). In any case, Glaucus of Regium must have obtained a clear idea of the style of Stesichorus by oral transmission.

The last quotation of Glaucus (De Musica 10, 34 D E) discusses Thaletas of Crete and Xenocritos of Locrois. Thaletas is said to have imitated (μεμιμῆσθαι) the melodies of Archilochus, but expanded them to greater length. Following the aulos-music of Olympos (ἐκ γὰρ τῆς Ὅλυμπου αὐλήσεως) he enriched them with cretic rhythm, which had not been used by Archilochus nor by Orpheus or Terpander. This points to larger strophic structures compared with the concise epodic structures of Archilochus. By knitting a net of crossing influences, Glaucus is able to find chronological relations between musicians without fixed

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73 Barker 2007, p. 85f.
74 De Musica 3, 32 C.
75 De Musica 4, 32 E; 33 A; 7, 33 F; 10, E; Archilochus Fr. 22 Diehl.
76 West 1971, p. 310f.
77 West 1992, p. 335.
date. His substantial remarks about Thaletas make it obvious that he had listened to choral lyrics which were attributed in his days to Thaletas. The last remark of Glaucus is about Xenocritos, who is said to be later than Thaletas.

7 Conclusion

We started with the puzzling fact that the compiler of De Musica, working in imperial times, does not use the ancient Greek notation, which is extensively used for demonstration by Aristides Quintilianus in his De Musica, a treatise which is not much older than Pseudo-Plutarch. The reasons for this fact are twofold: First it is known that De Musica uses mainly sources of the 5th to the 3rd century BC, namely Glaucus of Regium, Heraclides Ponticus, Aristotle and Aristoxenus of Tarentum, of which De Musica adopts the basic principles and leaves aside later developments. Secondly, these authors are coeval with the invention and the first steps of the notation into musical practice and theory. Aristoxenus, who is the first to mention the παρασημαντική, clearly described its failings: A musical notation, which is only a rough approximation to the musical realites, is not able to describe its decisive subtleties. Therefore Aristoxenus had to draw on oral transmission of music of his days as well as of the music of the past. This holds good too for Heraclides Ponticus and Glaucus of Regium. The precious compilation of De Musica thus presents a history of music which is founded exclusively on oral transmission, the tenacity and reliability of which we should not underestimate.

Bibliography

Beutler, R., s.v. „3) Plutarchos von Athen“, *RE* XXI 1, 1951, coll. 962–975.
Appendix 1

The Ancient Greek Notation according to Alypius

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| a | 33 | 32 | 31 | 30 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 |
| b | 12 | 11 | 10 | 9 | 9 | 8 | 7 | 6 | 5 | 5 | 4 | 4 | 3 | 3 | 2 | 2 | 1 |
| c | b | a | g | f | e | d | c | b | a | g | f | e | d | c | b | a | g |

**Fig. 1.1:** The 70 pairs of signs of the melodic and instrumental notation (West 1992, 256).
### Appendix 2

**Tab. 1: Pseudo-Plutarch, De Musica: Poets, Musicians and Sources.**

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<td>Plato, Heraclides Ponticus</td>
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