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Orthios as a Rhythmical Term

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Some ancient sources claim that the orthian nome was named so due to its rhythm. In order to estimate the probability of this assertion the author first examines known cases of ὄρθιος as a metrical or rhythmical term. After dismissing evidence which seems either mistaken or using ὄρθιος in a non-technical sense, the author believes that the following meanings are reliably attested: (1.1) an iambic trimeter with only pure iambic feet (possibly the term could be applied to other uniform verses as well); (1.2) a cretic with a resolution of both longs; (1.4) a sequence – ∪ ∪ – – ; (1.6) an elongated iambic foot, which consists of a tetraseme and an octaseme syllable. Next, the author analyzes what is reported concerning the rhythm of the orthian nome. As authors of the classical period, who were still able to hear the piece performed, attribute two different rhythms to it (elongated iambs and τὸ κατὰ δάκτυλον εἶδος), and also claim that Terpander used orthian rhythm to create a particular version of the orthian melody, it follows that ὄρθιος νόμος was not named ἀπὸ τοῦ ῥυθμοῦ. In support of this conclusion, it seems clear that the orthian nome was very well known to common people in the fifth century BC, so that its name must have been understood even by those who were no experts in rhythmical theory.

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My interest in the term ὄρθιος stems from an attempt to interpret the so-called ὄρθιος νόμος. This was a kind of musical composition popular in the classical period (Aristophanes, *Eq.* 1278–1279, identifies it as something that anyone with even a modicum of musical appreciation would certainly know). Evidence at our disposal shows that there were two types of orthian nome,¹ the citharodic (sung to the cithara)² and the auletic

¹ I do not think it plausible that aulodic orthian nomes were composed by Polymnestus (a supposition based on Ps.-Plut. *De mus.* 1134 C and D): see my article “Artistic Heritage of Polymnestus of Colophon”, forthcoming in *Mnemosyne*.

² Hdt. 1. 24; Aristoph. *Eq.* 1278; *Sch. Aristoph. Ach.* 1042, *Eq.* 1278a, 1279a, *Ran.* 1282; Poll. 4. 65; Suid. α 1701, εἰ 146, λ 753, ν 478, ο 574, 575, 585; Phot. *Lex.* α 1303, 1304, ν 302 Theodoridis; cf. Aristoph. *Eccl.* 741 with *Sch.*

(played on the aulos).³ Following conflicting ancient sources, some scholars argue that the orthian nome was named for its rhythm,⁴ others for its pitch.⁵ In this paper I shall examine the probability of the former.

All testimonies that argue the case that the orthian nome was named according to its rhythm are late and belong to the same tradition, most fully represented in the *Onomasticon* by Pollux (4. 65):⁶

νόμοι δ' οἱ Τερπάνδρου ἀπὸ μὲν τῶν ἔθνῶν ὄθεν ἦν, Αἰόλιος καὶ Βοιωτίας, ἀπὸ δὲ ῥυθμῶν ὄρθιος καὶ τροχάιος, ἀπὸ δὲ τρόπων ὄξυς καὶ τετραοίδιος, ἀπὸ δ' αὐτοῦ καὶ τοῦ ἐρωμένου Τερπάνδρειος καὶ Καπίων.

“The nomes of Terpander <got the following names>: from the races to which <Terpander> belonged, Aeolian and Boeotian; from the rhythms, *orthios* and *trochaios*; from the melodic structure, *oxys* and *tetraoidios*; after himself and his beloved, *Terpandreios* and *Kapion*.”

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In order to estimate the probability of this claim, we must first consider the meaning of ὄρθιος in metrical or rhythmical contexts.

1.1. Atilius Fortunatianus (Keil *GL* vol. VI p. 286. 16–18) likely names so an iambic trimeter with only pure iambic feet (⊖ – ⊖ – ⊖ – ⊖ – ⊖ – ⊖ –):

nam versus qui ex hoc uno (sc. ⊖ –) *est legitimus iambicus erit, quem Graeci ὄρθιον* (Putschen : ορτιον codd. : ὄρθόν Keil : ἄρτιον Morelli) *vocant, ut ille est,*

beatus ille qui procul negotiis.

“A verse which consists only of this kind <of foot>, will be legitimate iambic, the one which the Greeks call *orthion*, such as: (quot.)”

Cf. p. 287, 10–14:

iambicum hoc metrum, etiam si defuerit versui iambus vel rarus in eo fuerit, appellabimus. ille est legitimus solus, quem ὄρθιον (Putschen : ορτιον codd. : ὄρθόν Keil : ἄρτιον Morelli) *dixi, iambo solo constat. sed ut diximus iam dactylicum hexametrum etiam eum dici, qui omnes spondeos habeat, ita et hic iambicus dicitur, quamvis unum iambum habeat,*

pavidumque leporem et advenam laqueo gruem.

“We call this metre iambic, even if iambs are absent or rare in it. Legitimate is only the <iambic verse> which I called *orthion*, that is, which consists only of iambs. However, as I said above, a hexameter is called dactylic, even if it consists of all spondees; likewise, this verse will be called iambic, although it includes only one iambic foot: (quot.)”

³ Aristoph. *Ach.* 16 with *Sch.*; Dio 1. 1; Poll. 4. 73; Suid. ο 573, χ 171.

⁴ Müller 1882, 278–279; Sittl 1884, 288; Croiset 1914, 77; Abert 1899, 138; Bergk 1914, 9, ad Terp. fr. 2; Gentili 1988, 26 (with n. on p. 242); considered also by Barker 1984, 251 (“possible”).

⁵ Graf 1888, 512–523; Smyth 1904, 167; Salazar 1954, 278; 302; Del Grande 1960, 424; Pintacuda 1978, 43; id. 1982, 17 n. 1; Barker 1984, 252.

⁶ Cf. Hesych. ο 1188 Latte: ὄρθιον νόμον· οὕτως ἄνομάσθαι φασὶν αὐτὸν ἀπὸ τοῦ ῥυθμοῦ, καθάπερ καὶ τὸν τροχάιον. Suid. ο 575: Ὀρθιον νόμον καὶ τροχάιον: τοὺς δύο νόμους ἀπὸ τῶν ῥυθμῶν ἄνωμασε Τέρπανδρος.

The reading of the Greek word used in both passages is not secure. As for the emendation ὄρθιον, cf. *ThLL* IX. 2, p. 1057 s.v. *orthius*: writing *ortius* (as well as *hortius* and *orcus*) instead of *orthius* occurs regularly in Latin, and it seems likely that ὄρθιον is nothing more than a peculiarity of orthography.

However, G. Morelli argues that the Greek term should be emended to ἄρτιον, which corresponds to the Latin *legitimus* in several contexts.⁷ It should be noted that both terms mean ‘acatalectic’ in all the cases he adduces, a meaning which would be out of place here, since Atilius is comparing ‘correct’ iambic verse with those using resolutions or realizing *ancipitia* as longs, and not with catalectic ones.⁸ Yet it may be supposed that ἄρτιος, just like *legitimus* in Atilius’ passages cited here, had a broader meaning ‘correct, unchanged, taken in its integrity, free of licenses’.

It is not clear from Atilius whether “the Greeks” used the word to describe only iamb or other metres as well. To my mind, it looks more like a generic term than a designation of a particular sequence.

1.2. The term ὄρθιος is applied to a cretic with a resolution of both longs (⊔ ⊔ ⊔ ⊔). Diomedes, *Ars gramm.* 3, Keil *GL* vol. I p. 481. 13–14:

orthius ex brevibus quinque temporum totidem.

“Orthius of five shorts, of the same number of morae.”

Anon. *Ambr.* p. 232. 10–11 Studemund:

ὄρθιος ἢ ἀριθμῖος ἐκ πέντε βραχειῶν πεντάχρονος, οἶον “Θεοφάνιος”.

“Orthios, or arithmios, of five shorts, of five morae, such as Θεοφάνιος.”

O. Crisius⁹ suggested that a common trait of the cases 1.1 and 1.2 is ὄρθιος meaning ‘uniform, unvaried, homogeneous, consisting of equal elements’ (the same as μονοειδής): a verse formed by uniform metres, or a metre consisting of the same σημεῖα — only long or only short syllables. Judging by 1.2, this figurative meaning might be derived from ‘straightforward’ rather than ‘true, correct’ (cf. *legitimus* in 1.1). However, Atilius’ explanations seem to imply that a hexameter formed of all spondees was *not* called ὄρθιος.

1.3. In Alcidas *Od.* 25 (p. 33 Avezzù = *Mus. fr.* 103 Bernabé) a verse attributed to Musaeus is adduced in order to demonstrate that he was the πρῶτος εὐρετής of the numbers. Later Cassius Longinus (*Proleg. in Hephaest.* 5, p. 85. 5 Consbruch), Georgius Choberoboscus (*Sch. in Hephaest.* p. 180. 3 Consbruch) and Anonymus Ambrosianus (p. 231. 7 Studemund), all derived from the same source, quote this verse as proof that the polysemantic term μέτρον could mean ‘primary time’ (χρόνος πρῶτος), and ascribe it to either Orpheus or the Pythia:

⁷ Morelli 1998, 273–274.

⁸ Addressing this problem above, Atilius uses the terms *catalecticum*, *acatalectum*, *hypercatalecton* and *brachycatalecton* (p. 286, 26–287, 9).

⁹ Crusius 1887, 1392–1393.

ὄρθιον ἑξαμερῆς τετόρων καὶ εἴκοσι μέτρων.

“*orthion* of six parts (= feet), of twenty-four *metres* (= primary times)”

The reference must be to the hexameter.¹⁰ In the lack of context it is not evident whether ὄρθιον was used as a technical term, which would then signify this kind of verse — or merely as an epithet (possibly meaning ‘sonorous’¹¹). The latter seems more plausible, given that references to the Homeric metre are in excess supply beginning from the classical period;¹² however, calling it ὄρθιος is otherwise unattested not only by Alcidas’ time, but even later. Crusius¹³ took it for granted that ὄρθιος was a rhythmical term in this case and argued that it meant a lyrical hexameter consisting of non-contracted dactyls in every foot except the last one (as in Alcman *fr.* 26 Page). Thereby he sought to apply to it the same meaning μονοειδῆς as in 1.1, and conjectured <ἐ>εἴκοσι¹⁴ in order to use this line as an example for his hypothesis. Yet the verse itself seems to give no sufficient reason for such a conclusion (not to mention the final spondee that would anyway destroy the alleged uniformity).

1.4. Diomedes (*Ars gramm.* 3, Keil *GL* vol. I, p. 481. 24–25) applies the name *orthius* not only to 1.2, but also to a sequence – ◡◡ – – :¹⁵

orthius ex longa et duabus brevibus et longis duabus temporum octo.

“*orthius* of a long, two shorts and two longs, of eight morae.”

At the same time Anonymus Ambrosianus, whose excursus on pentasyllabic feet is apparently cognate with that of Diomedes, provides another name for this sequence, namely ἀντικύπριος (p. 234, 13–14 Studemund). However, he must be wrong, since *anticyprios* is the opposite of *cyprios* (◡ – ◡◡ – : Anon. Ambr. 233. 25–26 Studemund conforms to Diomed. p. 482, 4–5 Keil on this point), so its scheme is – ◡ – – ◡, as in Diomedes (p. 482. 5–6 Keil).

1.5. Anonymus Ambrosianus (p. 234. 5–6 Studemund) also uses the term ὄρθιος twice and records its even more exotic meaning: – ◡ – ◡◡ .

ὄρθιος ἢ ἀναπαιστικός ἐκ μακρᾶς καὶ βραχείας καὶ μακρᾶς καὶ δύο βραχειῶν ἐπτάχρονος, οἶον “εὐλογώτατος”.

“*Orthios* or *anapaistikos*, of a long, a short, a long and two short syllables, of seven morae, such as εὐλογώτατος.”

Once again, there is a divergence: Diomedes (p. 481. 28–29 Keil) calls this sequence *musicos*, whereas Anon. Ambr. (p. 233. 19–20) applies the name μουσικός ἢ λακωνικός

¹⁰ The invention of hexameter was ascribed to Orpheus: Kern 1922, test. 106.

¹¹ See Almazova 2020, forthcoming.

¹² ἑξάμετρον: Hdt. 1. 47; ἠρῶνον: Aristot. *Poet.* 1460 a 3; *Rh.* 1408 b 32; vgl. *AP* VII, 9; ἐπη: Heraclid. ap. Ps.-Plut. *De mus.* 1132 C.

¹³ Crusius 1887, 1393.

¹⁴ The conjecture is in itself implausible, since it is hardly possible that both the mss. of Alcidas and of the grammarian tradition would have gone astray by copying the verse.

¹⁵ Nowadays this colon is generally known as *adonius*: cf. Sacerd. Keil *GL* vol. VI, p. 516, 22–517, 3.

to – ◡ – – ◡, which is in truth ἀντικύπριος, as we have seen. In fact, in their common source ἀναπαιστικὸς must have been the term used for the sequence – ◡◡ – – (that is, *orthius* in Diomedes, see 1.4 above), since its opposite ◡ – – ◡◡ is called *antanapaestus* in Diomedes (p. 481. 29–30 Keil) = ἀντανάπαιστος in Anonymus Ambrosianus (p. 233. 13–14 Studemund).

Apparently ὄρθιος is misplaced in the account of Anonymus. W. Studemund¹⁶ suggested a very plausible explanation of the divergences in order and subject matter. Pseudo-Draco, a Byzantine scholar who reproduces the same tradition περὶ ποδῶν, reports that an excursus on feet was once exposed as a diagram or a table.¹⁷ Later grammarians must have copied it as a text, thereby displaying various kinds of imprecision, such as misaligning explanations and examples of certain terms. Therefore, we have good reason not to believe that ὄρθιος ever acquired the meaning – ◡ – ◡◡.

Double names, ὄρθιος ἢ ἀριθμῖος in 1.2 and ὄρθιος ἢ ἀναπαιστικός in 1.5, reproduced by Anonymus Ambrosianus, but neglected by Diomedes, perhaps helped to reduce the consequences of using the term ὄρθιος in two different meanings in the same treatise. I cannot imagine in what way the direct meaning of the adjective ὄρθιος could be extended to suit the case – ◡◡ – –.

1.6. Still another meaning is most clearly explained in Aristides Quintilianus: ὄρθιος (often referred to as ἴαμβος ὄρθιος, but in all cases the noun is missing and may or may not be understood from the context) is an elongated iambic foot with the first syllable of four χρόνοι and the second of eight χρόνοι. Aristides links it with the inverted foot called τροχάϊος σημαντός, which consists of an octaseme and a tetraseme syllable.¹⁸ Ar. Quint. 1. 16, p. 36, 1–6 W.-I.:

Ἐν δὲ τῷ ἰαμβικῷ γένει ἀπλοῖ μὲν πίπτουσιν οἶδε ρυθμοί· ἴαμβος ἐξ ἡμισείας ἄρσεως διπλασίου θέσεως, τροχάϊος ἐκ διπλασίου θέσεως καὶ βραχείας ἄρσεως, ὄρθιος ὁ ἐκ τετρασήμου ἄρσεως καὶ ὀκτασήμου θέσεως, τροχάϊος σημαντός ὁ ἐξ ὀκτασήμου θέσεως καὶ τετρασήμου ἄρσεως.¹⁹

“In the iambic genus, the following rhythms fall within the simple class: iamb of a half arsis and a double thesis; trochee of a double thesis and a short arsis; *orthios* of a tetraseme arsis and octaseme thesis; and marked trochee of octaseme thesis and tetraseme arsis.”²⁰

This extremely slow rhythm is described as noble and dignified: ὁ δὲ ὄρθιος (sc. ἐκλήθη) διὰ τὸ σεμνὸν τῆς ὑποκρίσεως καὶ βάσεως (Ar. Quint. 1. 16, p. 36. 29–30 W.-I.);

¹⁶ Studemund 1886, 232.

¹⁷ Ps.-Draco, *De metris poeticis* p. 132, 28–133, 2 Hermann: εὐρήσεις δὲ τῶν εικοσιτεσσάρων καὶ ἑκατὸν (sc. feet consisting of 2 to 6 syllables) τὰ ὀνόματα καὶ τὰς διαιρέσεις αὐτῶν ἐπιμελῶς γεγραμμένα ἐν τοῖς διαγράμμασι τοῦ Φιλοξένου. This Philoxenus may be an Alexandrian grammarian of the first century BC, cf. Suid. φ 394; Westphal 1867, 226–229; Wendel 1941, 199. Anonymus Ambrosianus indicates another source, namely Galen (p. 232, 8–9 Studemund): Πεντασύλλαβοι δὲ πόδες εἰσὶ τριάκοντα δύο, οὓς καὶ Γαληνὸς ἐν τῷ περὶ συνθέσεως τεχνῶν, so W. Studemund concluded that Galen made excerpts from Philoxenus. Westphal denies that this could have been the person meant by Ps.-Draco in the 14th cent.

¹⁸ For the history of interpreting these terms, see Marchetti 2009, 172–173.

¹⁹ Aristides is the source (see Stahl 1971, 53) of Martianus Capella (9. 985, p. 526, 10 sqq. Dick), who offers a rather close translation of this passage with a supplement: *orthius vero, qui ex tetrasemi elatione et octasemi positione constabit, ita ut duodecim tempora hic pes recepit videtur, atque habet propinquitatem aliquam cum iambico pede.*

²⁰ Translation: Mathiesen 1983, 98.

οἱ δὲ ὄρθιοι καὶ σημαντοὶ διὰ τὸ πλεονάζειν τοῖς μακροτάτοις ἤχοις προάγουσιν ἐς ἀξίωμα (2. 15, p. 83. 4–6 W.-I.).

The same two sequences are mentioned in a fragment of a rhythmical treatise preserved in *POxy* 9 + 2687, col. III 30–IV 1:

ὁ ὄρθιος καὶ ὁ σημαντὸς τροχαῖος ἐκ τριῶν κρητικῶν δύνανται ζυττ[ί]θεσθαι, δῆλον δ' ὅτι καὶ ἐκ τριῶ[ν π]εριεχόντων, δύνανται δὲ [κ]αὶ ἐκ τριῶν [ἡμ]ί[σε]ων.²¹

“The *orthios* and the marked trochee could be constructed from three cretics; it could evidently be made out of three “encompassers”, and it could also be made of three halves.”²²

The author is concerned with the license of lengthening long syllables to the value of three or more time units, and then makes a digression (III. 23–35, IV. 1–20) dedicated to the limits of this license in poetical practice. He arrives at a conclusion that not everything that is theoretically possible proves to be practically suitable. Rhythmical units changed to such an extent that they can hardly be recognized must be used sparsely and alternated with unaffected ones, and on the whole the appropriateness of any such experiment must be judged by αἴσθησις.²³

For the reference to the same pair of rhythms, the *orthios* and the marked trochee, in Pseudo-Plutarch *De mus.* 28, 1140 F see below 2.2.

Concerning each of these three sources scholars have supposed, with various degrees of probability, that they derived from some work of Aristoxenus. I think this next to certain as regards chapter 28 of Pseudo-Plutarch. The inventions of Terpander are enumerated in this passage in order to demonstrate that he, like other old-time musicians, did not avoid innovations, yet still managed to keep to noble and solemn music — unlike the decadent composers of the classical period. This ‘leitmotiv’ in *De musica* may be convincingly attributed to Aristoxenus: he is mentioned by name in 1134 F and 1136 D on similar occasions, while a number of other passages contrasting old and new music (including ch. 12 closely connected with ch. 28–30) reveal similarities to Aristoxenus both in subject and vocabulary (cf. in particular Aristox. fr. 70 Wehrli = Themist. *Or.* 33. 1, 364 B–C).²⁴

The attribution of the rhythmical papyrus is debated. Whereas its earlier editors²⁵ used to ascribe the treatise to Aristoxenus himself or at least to someone of his school, this attribution was refuted by Ch. Marchetti and L. Calvié on the basis of non-Aristoxenic

²¹ In rhythmical theory, κρητικός is – ∪ – ∪ (Aristoxenus ap. Choeroboscum p. 219.10 Consbruch; Ar. Quint. 1. 17, p. 38. 3–5 W.-I.). Thus, the named substitution requires using a combination of six time-units as equivalent to four. The meaning of περιέχοντες (“encompassers”) is debated. Perhaps these are syllables elongated to the value of three (or four) time units and thus embracing an entire rhythmic marker — arsis or thesis (Rossi 1988: 24; Calvié 2014, 13; Marchetti 2009, 261); or a combination of the outside syllables of the sequence (cf. Ar. Quint. 1. 22, p. 44. 28 W.-I.) — in the case of a cretic this will be – ∪ (Pearson 1990, 83); or else a group of syllables which comprises an internal ratio (Marchetti 2009, 261). Ἡμίσεις have been interpreted as shorts (halves of longs: Grenfell, Hunt 1898, 18; Rossi 1988: 27; Calvié 2014, 13; cf. Ar. Quint. 1. 16, p. 36. 2 W.-I.), as longs (halves of elongated syllables: Marchetti 2009, 261), and as – ∪ (halves of cretics, Pearson 1990, 83).

²² Translation: Marchetti 2009, 244 with minor changes.

²³ See Calvié 2014, 13–14.

²⁴ Weil, Reinach 1900, 53; Visconti 1999, 135–137; Meriani 2003, 75–79.

²⁵ From Grenfell, Hunt 1898 up to Pearson 1990. Cf. Rossi 1988, 9: “in fatto di armonica e di ritmica la teoria, nel mondo antico, è quella di Aristosseno, che non ha rivali. La vera alternativa è, piuttosto, tra *ipsissima verba* del maestro e adattamento scolastico della materia”. See Calvié 2014, 24–26 on the *status quaestionis*.

terminology and concepts. Calvié ascribes the fragment to a representative of a different school, probably active in the 5th century BC.²⁶

As regards Aristides Quintilianus' treatment of rhythmical matters (1. 13–20 and 2. 15), some parts are acknowledged to reflect Aristoxenus' theory, but 1. 16, which contains the description of ὄρθιος, as well as the entire section 15–17, must come from another source.²⁷

Anyway, even if only the passage of Pseudo-Plutarch proves to arise from Aristoxenus, this is enough to conclude that already by the Classical period the elongated iamb was known and described as ὄρθιος.²⁸

Crusius attempted to reduce 1.6 to 1.1 by suggesting that singing ἴαμβοι ὄρθιοι was accompanied by uniform beats of the cithara,²⁹ yet analyzing the accompaniment rather than the song itself seems unparalleled. Th. Bergk, referring to 1.1, supposed that ὄρθιος was the original name of the iambic foot \cup – inherited by its quadrupled version,³⁰ but this is at variance with 1.2–1.5. Aristides Quintilianus ascribes the meaning 'noble, elevated' (σεμνός) to it, but, so far as I know, this sense of the adjective ὄρθιος is not otherwise attested.

1.7. Bacchius (101, p. 315, 17–18 Jan = 25 Meibom) calls ὄρθιος a foot ἐξ ἀλόγου³¹ ἄρσεως καὶ θέσεως μακρᾶς, οἷον “ὄργη”.

The subject matter (but not the order and not always the terminology) of Bacchius' § 101 corresponds rather closely to the treatise of Aristides Quintilianus 1. 15–17: both passages apparently reflect the same tradition (that of the so-called συμπλέκοντες, Ar. Quint. 1. 18, p. 38. 15–17 W.-I.).³² This makes the unparalleled explanation of ὄρθιος in Bacchius suspect. According to the hypothesis of R. Westphal elaborated by C. von Jan, Bacchius (or whoever composed § 101) had at his disposal a more detailed account than his own (we can judge on its contents by Aristides), yet he confined himself to describing each time only one species of ten main rhythms. As he made such an excerpt, his eye slipped from the term ὄρθιος (probably used in the same meaning as 1.6) to the description of an 'irrational' iamb.³³ If so, his evidence has no value, and a lacuna must be postulated after ὄρθιος.³⁴

²⁶ Marchetti 2009, 237; Calvié 2014, 30–54.

²⁷ Westphal 1867, 85–104.

²⁸ A further reason makes this still more probable. It has been argued while interpreting *El. Rhythm.* 2 p. 21. 26–22.18 Pighi that in this passage Aristoxenus is thinking specifically of the same elongated feet as described by Aristides: the orthian, the marked trochee and the paean epibatōs (Weil 1855, 400–401; Marchetti 2009, 171; 175).

²⁹ Crusius 1887 p. 1393: “Jene gedehnten, aus langen Silben bestehenden ὄρθιοι trugen diesen Namen also wohl darum, weil die Figuren der Begleitung in gleichmäßige χρόνοι πρώτοι zerfielen”.

³⁰ Bergk 1914, 9: “iambus autem a principio videtur ὄρθιος vocatus esse, unde etiam postea versus, qui ex puris iambis fuit compositus, hic nomen sibi vindicabit” (with a reference to Atilius).

³¹ Irrational χρόνος is longer than a short, but shorter than a long (Bacchius 95). Aristox. *El. Rhythm.* 2. p. 22. 19–29 Pighi and Dion. Hal. *De comp.* 20 speak of an irrational foot whose time-relations cannot be expressed by a simple ratio; Ar. Quint. 1. 17, p. 37.24 W.-I. mentions ἄλογοι χορεῖοι δύο, one of them ἱαμβοειδής.

³² Westphal 1867, 94–96; Jan 1891, 558, 567.

³³ Westphal 1867, 96; Jan 1891, 567.

³⁴ Westphal 1867, 96: ὄρθιος [ἐκ τετρασήμου ἄρσεως καὶ ὀκτασήμου θέσεως, οἷον . . . ἴαμβος ἄλογος] ἐξ ἀλόγου ἄρσεως καὶ θέσεως μακρᾶς, οἷον “ὄργη”. Morelli 1998, 271 claims, with a reference to the sources

1.8. Outside rhythmical treatises it is not quite clear if ὄρθιος applied to a rhythm is a technical term, and what it means. In Athenaeus (14. 29, 631 B) we find a recommendation: τακτέον δὲ ἐπὶ τῆς πυρρήχης τὰ κάλλιστα μέλη καὶ τοὺς ὄρθιους ῥυθμούς. Elongated iambs (1.6), it appears, were hardly appropriate for an active military dance.³⁵ E. Graf supposed that ὄρθιοι ῥυθμοί were resolved cretics of five shorts (1.2).³⁶ However, after “the most beautiful melodies” (and considering the plural number τοὺς ὄρθιους ῥυθμούς) a more general attribute suggests itself. N. Golinkevich understood it as ‘excited’ (‘возбужденные’),³⁷ thus applying a characteristic of the orthian nome most often referred to in late antiquity³⁸ to the rhythm of the pyrrhic dance.

The probability of this meaning is confirmed by a passage in Posidonius (fr. 417, p.338 Theiler [p. 452. 15–453. 2 Müller] = Galen. *De placitis Hippocratis et Platonis* 5. 6. 20). Following Plato, the philosopher advises the use of different ῥυθμοί and ἀρμονίαι in order to bring up different kinds of people:

τοὺς μὲν ἀμβλεῖς καὶ νωθροὺς καὶ ἀθύμους ἐν τε τοῖς ὄρθιοῖς ῥυθμοῖς καὶ ταῖς κινούσαις ἰσχυρῶς τὴν ψυχὴν ἀρμονίαις καὶ τοῖς τοιοῦτοις ἐπιτηδεύμασι τρέφοντες, τοὺς δὲ θυμικωτέρους καὶ μανικώτερον ἄττοντας ἐν ταῖς ἐναντίας.

“...bringing up dull, sluggish and spiritless people with the help of *orthioi* rhythms, and melodic structures that move the soul intensely, and suchlike practices, and hot-spirited and people given to madness with the help of the opposite ones.”

Here again ὄρθιοι ῥυθμοί are ‘energetic’, ‘vigorous’, ‘calling for activity’,³⁹ a meaning probably arising from the generally known definition of the orthian nome.

On the whole, considering sparse and contradictory evidence one can conclude that ὄρθιος as a rhythmical term was scarcely used, and its meaning was not widely established. Only in 1.6 is there a possibility that it dates back to the classical period. As for applying it to pentasyllabic ‘feet’, it was surely a late, unhappy and unpopular invention. Section *περὶ ποδῶν* in handbooks must have originated in the scholia to Hephaestion’s *Enchiridion*;⁴⁰ for the most part grammarians conclude it with lists of four-syllabic feet, and some of them either note that there is no point in reviewing five-syllabic sequences,⁴¹ or else affirm that they have no particular names.⁴²

1.3 above, that ὄρθιος in Bacchius should be identified with the dactyl (which is notoriously absent from his list).

³⁵ Cf. Ar. Quint. 2. 15, p.82. 19–22: διὰ τοῦτο τοὺς μὲν βραχεῖς ἐν ταῖς πυρρήχαις χρησίμους ὀρώμεν ... τοὺς δὲ μακίστους ἐν τοῖς ἱεροῖς ὕμνοις.

³⁶ Graf 1888, 512 n. 1.

³⁷ Golinkevich 2010, 342.

³⁸ Dio 1. 1 etc.; see Almazova 2020 forthcoming, esp. n. 6 and 12.

³⁹ The translation of De Lacy 1978, 331 is meaningless: “high-pitched rhythms”.

⁴⁰ Westphal 1867, 196–197; 203; 206–207; 227–229.

⁴¹ E. g. Mallius Theodorus (Keil *GL VI*, p. 588, 1–5): *Pentasyllabos etiam quidam et hexasyllabos pedes, quos Graeci syzygias vocant, faciendos crediderunt, quorum nobis superflua et inanis opera repudianda est, cum eorum etiam pedes, quos supra enumeravimus, complures ab omni metrica disciplina alieni sunt.*

⁴² E. g. Schol. Hephaest. p. 296, 27–28 Consbruch: τοὺς λβ’ πεντασυλλάβους ποιοῦσι· οἷς ὀνόματα μὲν οὐκ ἔθεντο ἰδίους ἐκάστοις. Cf. Ps.-Draco *De metris poeticis* p. 131, 14–132, 9 Hermann, esp. 131, 28–29. Marius Victorinus (Keil *GL VI*, p. 48, 28): *Hac inspectione conicere poteris, quem ad modum ex disyllabis et trisyllabis pentasyllabi, sed et geminatis trisyllabis hexasyllabi pedes formari videantur, quorum syllabatim per tempora species comprehendere poterunt. Nam etiamsi propriis nominibus, ut alii pedes, minime exprimentur, tamen situ syllabarum et substantia temporum manifesti sunt.*

Having established the attested meanings of ὄρθιος in the rhythmical sphere, we must analyze what is reported concerning the rhythm of the orthian nome.

2.1. According to Glaucus of Rhegium (Ps.-Plut. *De mus.* 1133 F), some people argued that Stesichorus borrowed the dactylic kind of rhythm from ὄρθιος νόμος.

ὅτι δ' ἐστὶν Ὀλύμπου ὁ ἀρμάτειος νόμος, ἐκ τῆς Γλαύκου συγγραφῆς τῆς ὑπὲρ τῶν ἀρχαίων ποιητῶν μάθοι ἂν τις, καὶ ἔτι γνοίη ὅτι Στησίχορος ὁ Ἰμεραῖος οὐτ' Ὀρφέα οὔτε Τέρπανδρον οὐτ' Ἀρχίλοχον οὔτε Θαλήταν ἐμιμήσατο, ἀλλ' Ὀλυμπον, χρησάμενος τῷ ἀρματείῳ νόμῳ καὶ τῷ κατὰ δάκτυλον εἶδει, ὃ τινες ἐξ ὄρθίου νόμου φασὶν εἶναι.

“The fact that the chariot nome was the invention of Olympus may be learned from Glaucus’ book about the ancient poets, which also informs us that Stesichorus of Himera took as his model not Orpheus or Terpander or Archilochus or Thaletas, but Olympus, since Stesichorus used the chariot nome and the dactylic species of rhythm, which some people say is derived from the orthian nome.”⁴³

Both Glaucus and his opponents recognized the nomes by ear and could have no doubts as regards to their rhythms — only the source of Stesichorus’ borrowing was subject to discussion. Hence this passage provides irrefutable evidence that the rhythm κατὰ δάκτυλον was appropriate for the orthian nome — but not that it was the only one.

2.2. Another passage in Pseudo-Plutarch (*De mus.* 1140 F) has a different source, which is in all probability Aristoxenus, as argued above. It is claimed that olden-day musicians, including Terpander, admitted innovations, but never violated good taste. Unfortunately, the text is corrupt:

οἱ γὰρ ἱστορήσαντες τὰ τοιαῦτα Τερπάνδρῳ μὲν τὴν τε Δώριον νήτην προσετίθεισαν, οὐ χρησαμένων αὐτῆ τῶν ἔμπροσθεν κατὰ τὸ μέλος, καὶ τὸν Μιξολύδιον δὲ τόνον ὄλον προσεξεύρασθαι λέγεται, καὶ τὸν τῆς ὄρθιου μελωδίας τρόπον τὸν κατὰ τοὺς ὄρθιους πρὸς <τε> τῷ ὄρθιῳ <καὶ τὸν> σημαντὸν τροχαῖον.

πρὸς <τε> τῷ ὄρθιῳ <καὶ τὸν> σημαντὸν Rossbach : πρὸς τὸν ὄρθιον σημαντὸν codd.

“Students of such matters have ascribed to Terpander the introduction of the Dorian nete, which has not been used in the melody by his predecessors. He is also said to have invented the entire Μιχολύδιον *tonos*, and the variety of orthian melody that goes with the orthian foot, and in addition to the orthian foot the marked trochee as well.”⁴⁴

Accepting the emendation, one has to suggest that μελωδίας is a generic term, probably meaning the same as νόμου; τρόπον is a particular version of this melody; the noun ‘feet’ should be conjectured with κατὰ τοὺς ὄρθιους in plural, while τῷ ὄρθιῳ in singular, as well as τὸν σημαντὸν τροχαῖον, may imply ‘foot’, ‘metre’ or ‘rhythm’. Ὄρθιος coupled with σημαντὸς τροχαῖος must have the same meaning as in Aristides Quintilianus (1.6). Thus, Terpander will have created a new kind of the orthian nome distinguished by the

⁴³ Translation: Barker 1984, 213 with minor changes.

⁴⁴ Translation: Barker 1984, 233 with minor changes.

orthian rhythm, and also have invented the marked trochees after the same pattern as the orthian iambs, though it is not clear if he applied them to the orthian melody. Using ὀρθίος in various meanings and numbers in the same phrase, with two nouns missing, renders the text still suspect despite the emendation, but, as far as I know, no alternative reading or understanding has been ventured.⁴⁵ Interpreted in this way, the passage makes it clear that one, and only one, kind of orthian nome used orthian iambs as its rhythm.

2.3. In a comment on the passage from the *Frogs* by Aristophanes, where Euripides claims that Aeschylus borrows his monotonously uniform songs ἐκ τῶν κιθαρωδικῶν νόμων (*Ran.* 1282), a certain Timachidas argued that it was specifically the orthian nome that was implied.⁴⁶ If so, it follows that numerous examples adduced in lines 1264–1277 and 1284–1295 in order to mock Aeschylus' lack of inventiveness illustrate the rhythm of this nome, namely acatalectic, sometimes contracted dactylic sequences of different length (one might think of τὸ κατὰ δάκτυλον εἶδος mentioned by Glaucus, 2.1).⁴⁷ Still, whereas such a rhythm was indubitably typical of citharodic tradition in general, there are reasons to doubt whether Timachidas possessed reliable information concerning the orthian nome in particular, rather than invented these data himself. Aeschylus mentioned ὀρθιοὶ νόμοι in a metaphor (*Ag.* 1153) and used the verbs ὀρθιάζειν (*Pers.* 693), ἐξορθιάζειν (*Cho.* 269), ἐπορθιάζειν (*Ag.* 29; *Pers.* 1051), so that a reader might link him to the orthian nome simply by studying his pieces.

2.4. Lastly, there is a fragment ascribed to Terpander (fr. 2 Gostoli = *PMG* 697 Page), which, as Didymus⁴⁸ argued, comes from an orthian nome.

ἀμφί μοι αὐτίς ἄναχθ' ἑκαταβόλον
ἀειδέτω φρήν.

“Let my soul sing again of the far-shooting lord...”

As is usually the case with the scholiasts' assertions concerning nomes of the classical period, it may be put into question whether Didymus possessed real information, or just advanced his own conjecture. The fragment survived in lemmata dedicated to the word ἀμφιανακτίζειν, and it follows from similar comments that this verb was invented by comic poets to mock the beginning ἀμφὶ ἄνακτα too often used by composers of various nomes (orthian, Boeotian, Aeolian: Phot. *Lex.* α 1304), proems and dithyrambs (*Suid.* α 1700).

⁴⁵ Rossbach 1854, 100: “Terpander soll, so sagt Plutarch [28], die Weise der *orthios melodia* nach orthischen Rhythmen und nach Analogie des Orthius auch den Trochaeus semantus erfunden haben“. The same is the understanding of Volkmann 1856, 32; 116; Westphal 1865, 52; Weil, Reinach 1900, 104–107; Ballerio 2000, 85. In my turn I am not able to propose a more plausible hypothesis.

⁴⁶ *Sch. Aristoph. Ran.* 1282: ἐκ τῶν κιθαρωδικῶν νόμων. Τιμαχίδας γράφει, ὡς τῷ ὀρθίῳ νόμῳ κεχηρημένου τοῦ Αἰσχύλου...

⁴⁷ For my analysis of this passage see Almazova 2016, 109–113.

⁴⁸ Didymus' name is mentioned in an interlineary scholium in *P. Flor.* 112, see Luppe 1978, 161: l. 55–56 τοῦτο τοῦ Βοιωτίου [νόμου; l. 57–58 Δίδυμος [ἐκ] τοῦ προοιμ[ί]ου τοῦ το[ῦ] Ὀρ[θίου] νόμου. Cf. *Suid.* α 1701 Ἀμφιανακτίζειν: ἄδειν τὸν Τερπάνδρου νόμον, τὸν καλούμενον ὀρθιον, ὃ αὐτῷ προοίμιον ταύτην τὴν ἀρχὴν εἶχεν. (quotation of fragment follows). Phot. *Lex.* α 1303 and α 1304: Ἀμφὶ ἄνακτας ἀρχὴ τίς ἐστὶ νόμου κιθαρωδικοῦ Βοιωτίου ἢ Αἰολίου, ἢ τοῦ ὀρθίου.

As edited by A. Gostoli, the fragment consists of an alcmanium (4 da) and a reizian (U – U – –). Previously, many scholars, motivated by indications in Pseudo-Plutarch that Terpander used epic metre (*De mus.* 1132 B; D–E; 1133 B–C), proposed changing the text into a hexameter.⁴⁹ Yet such a reason for emendation looks arbitrary: as proved by 1140 F, Terpander did not confine himself to a single metre. Moreover, B. Gentili plausibly suggested that ἔπη in Pseudo-Plutarch included not only hexameters, but also dactylo-epitrites.⁵⁰

Juxtaposing the first and the second group of testimonies we must admit that technical meanings of ὄρθιος attested in rhythmical treatises suit the rhythms associated with the orthian nome in our sources. Orthian iambs (1.6) seem to be explicitly attributed to this nome (2.2). As regards τὸ κατὰ δάκτυλον εἶδος (2.1), the exact meaning of this term is not known,⁵¹ but it looks likely that such a category could embrace the sequence – UU – – (1.4) as well as verse made up of pure dactyls (1.1; 1.3?) of the type beloved by Aeschylus (2.3), or even of all longs (1.2), such as ascribed to Terpander (fr. 3 Gostoli = *PMG* 698 Page). Only the structure of Terpander's verse (2.4) seems at odds with what could be called ὄρθιος ῥυθμός, but the text may not be sound, and may not be derived from an orthian nome.

Nevertheless, a theory of naming ὄρθιος νόμος by rhythm must be refuted, since it is disproved by the data of Pseudo-Plutarch. *Περὶ μουσικῆς* provides evidence of primary importance, i.e. by the authors who could still hear the orthian nomes with their own ears (2.1 and 2.2). Which is more, the rhythms of these nomes in both passages are not subject to discussion; they are mentioned as something established and form a point of departure for conclusions about their invention or transmission. Now, Glaucus of Rhegium, together with his opponents, knew an orthian nome with τὸ κατὰ δάκτυλον εἶδος of rhythm, and some people either contemporary or prior to Aristoxenus claimed that using orthian iambs in a particular version of this nome was an invention of Terpander. It seems evident that orthian iambs can by no means be referred to the dactylic kind, so two different rhythms are reliably attested for this piece. Moreover, it is obvious from the report about Terpander's innovations (if interpreted correctly) that the orthian melody already existed before orthian feet were applied to it, and this rhythm helped to create only one of its species.⁵² Apparently this view excludes that ὄρθιος νόμος was named ἀπὸ τοῦ ῥυθμοῦ.

Later on, after the practice of writing rhythmical treatises developed, the very existence of ὄρθιος as a technical term could provoke some scholar to connect it with the orthian nome, well known to grammarians by references in classical literature, but hardly preserved as a musical piece by that time.

This conclusion may be supported by general observations. The name 'orthian nome' is known — indeed very well known, being the first thing that springs to mind when considering κιθαρωδία — to Herodotus (who ascribes its performance to Arion, 1. 24) and

⁴⁹ ἄδέτω <ἀ> φρήν: Ernesti in Hermann 1799, 363; accepted by Schneidewin 1839, 237; Page 1962, 362, ad fr. 697; Campbell 1988, 314. ἀϊδέτω φρήν: van Groningen 1955, 188–189.

⁵⁰ Gentili 1977, 34–36.

⁵¹ I think plausible the hypothesis of Dover 1968, 181 that κατὰ δάκτυλον were purely dactylic, anaepastic, and spondaic sequences without a "remainder" at the beginning or the end. See Almazova 2016.

⁵² Some scholars even suggested that the rhythm was named by the nome and not vice versa: Volkmann 1856, 116; Weil, Reinach 1900, 105; Lasserre 1954, 24–25; Gamberini 1979, 243 n. 2; Cristante 1987, 370.

Aristophanes (*Eq.* 1279; cf. *Eccl.* 741; *Ach.* 16). Therefore, it is not likely to be a scholarly invention based on analyzing the rhythm of existing pieces (in any case these pieces ought to have their own name even before such analysis). Commoners such as Dicaeopolis must have always had an understandable term for this nome, which would not require such complicated technical matters as counting syllables and χρόνοι πρώτοι. I hope to demonstrate in a forthcoming article that evidence dating to the classical period does indeed confirm the existence of such an accepted alternative explanation.

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