

Metricae

Poet in the Machine

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Abstract

A new law of tonal prominence for Greek serves as a guide to explore the texture and cadences of Homeric poetry, and begins to reveal the characteristic music of the hexameter. Everywhere in the structure of cadence-turn-cadence there is evidence of choice, belying a role for inherited formulas in a supposed oral composition.

Keywords: Homer, Hexameter, Rhythm, Music.

Resumo

Uma nova lei sobre a ênfase tonal para o grego serve de guia para explorar a textura e as cadências da poesia homérica e começa a revelar a música característica do hexâmetro. Há evidência generalizada disso na estrutura de cadência-retorno-cadência, desmentindo o papel das fórmulas herdadas em uma suposta composição oral.

Palavras-chave: Homero, Hexâmetro, Ritmo, Música

My new theory of the ancient Greek pitch accent is developed in *The Dance of the Muses: Choral Theory and Ancient Greek Poetics* (Oxford 2006). It proposes a new empirical law of prosody for Greek and Latin, a law of tonal prominence. This is a development in the field of Classical languages comparable to the introduction of the descriptive law $F=ma$ in classical physics. That is because there is not an interaction with a classical text that does not depend on one's interpretation of emphasis, and it is impossible to read this emphasis without knowing how the words of a language are actually accented in performance. In point of fact, one cannot even *talk* without knowing this, let alone compose or recite poetry. The law of tonal prominence must therefore be promulgated for the use, abuse, and inspiration of students of the literature of the ancient world.

It allows for the first time that the integral pitch contours—the accentual melody—of spoken Greek can be restored to ancient prose and poetry. There were two components of W. S. Allen's descriptive work, which, when connected—but not by him—caused the breakthrough. The first was his description of the Greek accent as a 'contonation', based on a comparison with the combined rise (*udatta*) and automatic fall (*svarita*) in pitch, often over two syllables,

characteristic of the Vedic accent. The latter automatic down-glides are not usually marked in Greek texts, and so must be inferred, based on their presence in the known cognate. But there is also support for their presence in the native Greek descriptions, which, it turns out, have long been read with a most unnatural interpretation of a key term (βαρῦς, 'heavy') as 'unaccented', in the usage of philosophers, grammarians and scholiasts.

There are in fact two native descriptive terms that constitute the elements of classical harmony: ὀξύς ('sharp') and βαρῦς ('heavy'). Their original use needs to be distinguished from their later *application*, both to fixed pitches (respectively 'high' and 'low'), and also to the graphic signs that first came into use by the Alexandrian scholars. The acute (´) and grave (`) signs were at that time complemented by a third, the perispomenon (˘) or circumflex. But the original binary distinction, ὀξύς-βαρῦς, precedes the use of these three signs, and is not reflected in their system. It might be confusing to have to distinguish the accent marks from the actual accents. But this is what is required. The accent marks only refer to the ὀξύς element; they mark the mora of a vowel that bears the rising pitch. The grave sign only signifies the suppression of this rise, not a second kind of pitch accent. The two elements of the whole contonation are combined on long vowels which bear the circumflex. But the original distinction bespeaks the perception of two different kinds of pitch accent, one sharply rising and one heavily falling, when the contonation is split between adjacent syllables. I claim that the original distinction between ὀξύς and βαρῦς corresponds to the description of pitch change in Vedic: between *udatta* and *svarita*, rising pitch and down-glide. In the Greek case, one or the other of its elements was perceived to be more prominent, depending on the quantities on which the contonation was placed. This led to syllables and words being distinguished as 'oxytone' or 'barytone', a distinction I can renew and justify.

The second component of Allen's work was his more controversial inductive description of an apparent stress pattern in the syllables of Greek words, which would account for their preferred placement at certain metrical positions. He articulated the rules for the location of this word-level dynamic prominence.¹ I suppose it is something of a clue that Latin stresses in Roman verse were known to reinforce strong positions of feet in a musical way—not automatically but with selective, artful syncopation—while most all of its metres appear to have been borrowed from Greek. This does rather suggest that the Greek originals may have reinforced their metres in a similar way.

Specially significant in Greek was the down-glide in pitch, which under my proposed rule was prominent over the acute rise whenever it occurred on a following heavy syllable. This post-acute down-glide has been noted elsewhere, without its accentual significance being recognised. Allen, for one, demonstrated

1 W. S. Allen, *Accent and Rhythm*, Cambridge: Cambridge University Press, 1973, 274-334.

statistically the tendency for strong positions of feet to be landing points for the circumflex or the post-acute down-glide.² Georg Danek and Stefan Hagel call attention to the structural importance of this downward glide after the high pitch peak in their analysis of the melodic contour of the Homeric hexameter.³ The graphic accent marks directly indicated the automatic down-glide only, however, in the case of the circumflex.

The law of tonal prominence is as follows:

The *udatta* (acute rising pitch) when followed by a light syllable is prominent; but when the *svarita* (automatic following down-glide) lands on a heavy syllable, that syllable is always the most prominent prosodic feature in a word.

Once this law is applied to Homer's hexameters, or any other Greek metrical composition, the music of their composition is revealed.

If the deciphering of Linear B was a momentous advance in our knowledge of the history of Greek, surely the discovery of the rôle of the pitch accent in epic and lyric was even more so, for the vivid understanding and experience of ancient Greek literature. We have long since known the feet, the sequence of dance steps encoded in the poems; now we know which syllables were dynamically reinforced, so we can hear for the first time how the natural rhythm in the words interacted with the ictus of the metre. There is something of a structure and form to the metrical template before there is any infusion of melody or dynamic reinforcement. In my first book I describe how the Homeric hexameter shows within it a unique turn and coda, often expressed by the bucolic diaeresis; I have argued elsewhere that this feature was born of its relationship to the peculiar retrogression in the steps of an ancient Greek round dance.⁴ This leftward retrogression took place precisely between the steps corresponding in the verse to the trochaic caesura and the bucolic diaeresis.

But this peculiarity takes its place in the harmonic hexameter line's overall double cadence structure, made explicit before and after the turn at mid-line and line end. A cadence at mid-line and at line end is in fact a familiar and recognisable feature of the world's stichic poetic forms, whatever their origin or purpose— narrative, dramatic, supposed oral or otherwise. Whole lines of poetry, taken as wholes rather than sums of four or five or six or more beats, seem generally to want to divide into two, somewhere near the middle. The resulting 'rhythmic clauses' often correspond, but do not always coincide, with grammatical clauses, resulting at times in internal and linear 'enjambments'. Let us take this as a factual generalisation about the territory, consistent with the common descriptions of Homer's line—despite its primacy

2 Allen, *Accent and Rhythm*, 262-4.

3 Georg Danek and Stefan Hagel, 'Homer-Singen', *Wiener Humanistische Blätter*, 1995, 14-15.

4 David, *The Dance of the Muses*, 15-16, 95, 114-15, 125-6, 166-7.

of historical place in the company of other stichic poetry—before commencing a guided exploration.

The practical key to the interpretive method is to examine the syllable immediately following the acute accent mark. If it contains a long vowel or is closed, the relative prominence is on that following syllable. This is because the automatic down-glide in pitch occupies two moras to the acute's one. Otherwise the acute accent mark itself indicates the most prominent syllable. Circumflexes imply that the down-glide occurs wholly within the same syllable as a brief initial rise. The interpretation of musical settings, as well as comparison with Vedic, suggest that the rise and fall were not equivalent in the circumflected vowel, one mora each, but that the rise was like a grace note and the down-glide predominated. The grave sign (not the same as the βαρύς accent) indicates a suppressed acute. It is not clear whether the grave sign therefore means 'unaccented', or whether it signifies a modified but audible kind of pitch rise in relation to other syllables.

Thus is revealed the run of the rhythm composed by the poet for these feet, as against the false automatic rhythm of the schoolboy, ignoring his legs and body and stressing the ictus (underlined) in his recitation:

Ἔσπετε **νῦν** μοι, **Μοῦσαι** Ὀλύμπια **δῶματ'** ἔχουσαι—
Ὑμεῖς γὰρ θεαί **ἔστε**, **πᾶρεστέ** τε, **ἴστέ** τε **πάντα**,
ἡμεῖς δὲ κλέος **οἶον** ἀκούομεν **οὔδέ** τι **ἴδμεν**—
(II.484-6)

Tell me now, Muses, who keep Olympian houses—
For you are goddesses, you're right there, aware of
everything,
But we only hear the report and we don't know a thing—

How does one proceed, in order to disclose the Homeric music and line design? Let us not presume beyond the syllable. I recommend that students first punch the schoolboy's ictus, in the manner of traditional scansion. Then let them maintain the dactylic habit of the scansion, but 'punch' only the syllables in bold. In the first line there should be no difference in the result, but in the second, one should experience the Homeric syncopation, and in the third, a taste of the rising final cadence that is a regular variant feature of the Greek hexameter, but very rare in Latin. The practice of 'punching' the prominent syllables reveals something genuine, and new for today perhaps, about Homeric rhythm.

Even so, blindly punching the prominent syllables with a dynamic stress is not a way to experience anything authentic about Homeric Greek or Homeric music. It should be clear from these few lines that there can be a great variety of sounds and shapes which can cause tonal reinforcement or syncopation. In just the first line, where it seems the ictus is always reinforced on the long

thesis, the syllables doing this involve two acutes on short vowels in closed syllables (**ἔσπετε**, Ὀλύμπια), two circumflexes (perispomenon νῦν and properispomenon Μοῦσαι), acute on a long vowel (δῶματ') and a post-acute barytone (ἔχουσαι). Elsewhere in Homer there are prominent acutes and circumflexes in the arsis. There are of course also non-prominent acutes in both strong and weak positions. Only the post-acute barytones are always tonally prominent.

Circumflexes would seem to give the most unambiguous instruction: the whole contonation is completed on this vowel. But the alchemy of historical change sets traps. In our received written texts, there are even seemingly non-prominent circumflexes in the arsis (e.g., ἀγροῦ ἐπ' ἔσχατιῆς, *Odyssey* 5.489). Perhaps correption of a circumflex yields a prominent acute (ἀγρό' ἐπ' ἔσχατιῆς)? The derivational picture need not see a circumflex, however: an original genitive in —όο simply went to —ό' after elision before an initial vowel. But after such genitives historically contracted to —οῦ, elision would have meant also elision of the down-glide, an avoided move that may have preserved the circumflex sign in these instances in the written versions of the classical era.

It should be evident that the prominence marked in bold is a relative phenomenon, a feature of registration within a word or a word-like grouping. There is no reason to suppose, for example, that the magnitude of the pitch rise is any different in the syllables marked acute in **ἔσπετε**, δῶματ' or **ἔχουσαι**, but in the last case it is less prominent in relation to the down-glide in pitch on the following long syllable. The down-glide would seem to have acted as a release of some kind ('what goes up must come down') which trumps the sharp preceding rise. But there need be no objective difference in the performance of prominent and non-prominent acutes. The perception of prominence appears rather to be an emergent word-by-word phenomenon.

There is indeed a great variety of tonal and quantitative rhythmic movement specified in the composition of Greek speech and poetry. The preference for the long down-glide landing on the long *thesis* at a definable musical cadence point, Allen's statistical demonstration, is in fact the best clue that there is in fact a certain set of these combinations of pitch and duration that Greek speakers thought best suited the strong metrical positions. But as we've noted, all the other combinations of pitch change and duration still held their value in the presence of these adjacent classical tonal prominences. In this the prominent Homeric syllables I am highlighting are like emphatic syllables in songs, or emphatic notes in instrumental music; they are not musical intrusions into a rhythmically monotonous background, but musical momenta which emerge from the already vigorous currents of a sea of music.

In my own practice I always observe the rise in pitch indicated by an acute sign (or by the beginning of a circumflex). There does seem to be a difference, however, at least subjectively, when the acute anticipates an immediately following barytone prominence, as in **ἔχουσαι**, and when it is itself sharply

prominent (ἔσπετε). Both reinforcement and syncopation seem better effected when tonal prominence also involves some dynamic element ('punch'). As for the barytone, it would seem that the long quantity already adds emphasis to the falling pitch, but here also a teaspoon of the dynamic element adds life and drama to its rhythmic and tonal reinforcement.

Where the acute accent is a sharp intensity, the down-glide brings gravity and fulfilment, relaxation and relief. It can sometimes feel like an arrival out of place or delayed, until it lands on a thesis at a cadence point of agreement. The performance of the disyllabic accent seems to do a lot of work built in to the sequence of the words, pre-conscious in relation to the more conscious intonations of an actor. The rhythmic patterns in the Greek are reinforced by a finite set of varied melic dynamisms, some rising in pitch, some falling, some short and some long, some circumflex. Greek speech seems a musical event, before it is set to any formal music or interacts with dactylic metre.

In any case, it seems a key to reproducing what has been written into Greek literary scores always to register the rises in pitch, even when they are anticipatory and do not receive the reinforcing emphasis of the most prominent single syllables of words. This pitch-rising anticipation alerts us to the distorting lens of our monosyllabic stress habits, in the presence of the disyllabic contonation of the ancient world. Applied in the ancient quantitative milieu, the tonal equivalent of two different kinds of stress reinforcement, sharp oxytone and heavy barytone, came into play. By contrast, while English stresses take on a variety of manifestations, differences in directions of pitch change and durations for stresses are not usually directed in written poetry, and seem to be all but unconscious in formal and informal performance. It is only in notated musical composition that such distinctions for English syllables become specified as they are for Greek ones.

In enclitic phrases like πάρεσ-τέ τε, ἴσ-τέ τε, each of which contain two adjacent prominent syllables, it is impossible to know whether the prominent barytones -ρεσ- and closed ἴσ- are louder than their following prominent oxytones -τέ, only that they are longer in duration. Non-prominent syllables do not lose their vowel values or quantities, as unstressed syllables usually do in English. And of course there is every indication that acute pitch rises in Greek maintain their quality even when it is the following down-glide that is prominent, so much so that it is only the location of the pitch-rise that is marked by a graphic accent. In Vedic as well as Greek and Latin, the down-glide in pitch is supposed to be automatic on the following syllable. I suggest that it is only when this down-glide happened to fall on a long syllable in Greek that it registered as a prominent βαρύς accent. The fact these post-acute barytones disproportionately reinforce metrical *theses*, along with circumflexes and long oxytones, suggests that they also received a 'punch' of volume or intensity in performance in relation to unaccented syllables or syllables with anticipatory acutes.

Of course not all the music of Greek is in its accents and tonal prominences. Greek preserves the greatest variety of vowel sounds among its Indo-European cognates. With the aspirations and voicing of its consonants and the quantities of its vowels, Greek poetry seems blessed in its phonic and rhythmic resources, before tonal patterns and reinforcements consummate the sum. Consider the phonic feast in this line:

τριχθά τε καί τετραχθά διέσχισε ῥίς ἀνέμοιο. (Odyssey 9.71)

(and their sails)

Thrice rip-torn and quartered, the force of the wind cut through them.

There are no long vowels except for one diphthong. Only three of the line's sixteen syllables are tonally prominent, and only two out of six dactylic theses are reinforced. τετραχθά does not even bring us to a tonal cadence in the third foot; its accent is suppressed (grave). But the trilled aspirated rhos and conjoined aspirated phones virtuosically mime in the mouth the tearing of the sail sheets; the effect even seems enhanced by the levelness of tone. Homer's Muse yields another perfect line with limited resources. The wind blows through its coda.

Where the bold, accentually prominent syllable is not the same as the underlined syllable, or does not occur where there is one, there is musical disagreement between accent and ictus. In the first line of the invocation above, for example, "Ἔσπετε **νῦν** μοι, **Μοῦ**σαι Ὀλύμπια **δῶ**ματ' ἔχουσαι ...", the agreement is complete. In the sixth foot, I argue that accent determines ictus; my practice here of underlining the sixth longum is not to suggest that it is preferred for reinforcement to the final syllable, but only to illustrate the variety of Homer's final accentual cadences. This is in contrast with the Latin hexameter's accentual cadence which is regular on the sixth longum. Homer's lines often ascend instead to a cadence on their final syllable—their final syllable is tonally prominent—unlike Virgil's lines. But Homer evidently also likes the feminine cadence at line end (e.g. **πάν**τα, ἔχουσαι), the Virgilian regularity. There is therefore shown to be a decisive variety in Homer's compositional choices, in a position where the metrician can only record a 'doubtful' x, neither longum (–) every time nor breve (˘) but 'anceps': either one.

In general, across Greek poetry, the indeterminacy of the metrician's anceps is a secret sign for the tonally initiated: at the middles and ends of periods, it strongly marks a locus of compositional interest and choice between qualities and locations of possible accentual cadence.⁵ X marks the spot. When the Greek hexameter's final syllable is long, it is always tonally prominent.

But the confirmatory revelation here in the Muses' invocation is clearly regular agreement in the third foot near mid-line—bold text and underlining in the

5 David, *Dance of the Muses*, 19-20, 251-52.

same syllable—which causes the two types of regular caesura, and is highlighted and offset by either a lack of reinforcement or outright disagreement in the prior syllables of the line. All three mid-line cadences in these lines happen to be of the feminine variety, with a trailing syllable: **Μοῦσαι, ἔστε** and **οἶον**.

The most common cadential reinforcement in this third foot comes via barytonic prominence. As the scholiast put it, movements or transitions (κινήματα) arise ‘for the most part on the basis of the barytone’ (ἀπὸ βαρυτόνου). He there means to point to the prevalence of the barytone over the circumflex to implement this function in Homer (arguing in that instance for a form στενάχων over στεναχῶν), but either the post-acute barytone or the circumflex is able to reinforce a heavy downbeat. So also can an oxytone on a long vowel, e.g. θεά, the ‘masculine’ cadence at the *Iliad*’s first mid-line: **μῆνιν ἄειδε θεά,** ||. Barytonic prominences allow for two possible cadence shapes, on the penult or ultima; these generally result in the trochaic or the penthemimeral caesura.

Now, barytonic or oxytone prominence can occur anywhere in the line. Such prominence can reinforce any one of the six long downbeats of an hexameter. So what is it about such a conjunction that causes the sensation of cadence at certain points more than others? Here we must look to the gestalt of the whole line, a single thing, not a sextet, which likes to divide near the middle. It is only this larger view of the whole that could privilege the third foot, and the sixth, with the expectation of a cadence effect. But any longum in the line can, and is, at times made tonally prominent. Hence to demonstrate the presence of an habitual cadence in the third foot, for example, we shall need to show an equally habitual deemphasis of the longums of the first and second feet, so that the landing on the third foot will stand out.

The first line of the Muses’ invocation above turns out to be an outlier: every dactylic thesis is made dynamically prominent. But consider the two lines following: their opening phrases are **ὑμεῖς γὰρ** θεαί **ἔστε** and **ἡμεῖς δὲ κλέος οἶον**. In neither **ὑμεῖς γὰρ** θεαί nor **ἡμεῖς δὲ κλέος** are either the first or second thesis made tonally prominent. Instead, prominence occurs in both phrases in the upbeat of the *arsis*. This prepares the way for the third-foot landings of **οἶον** and **ἔστε**. They are therefore offset as mid-line cadences. This allows us to infer that **Μοῦσαι** in the previous line also registers as a cadence, because it is in the third foot.

Here, for example, are some lines between Thetis and Achilles; all of them show agreement of accent and ictus, harmony and rhythm, boldface and underlining in the third foot—a third foot cadence causing caesura—preceded in the first two feet by a variety of disagreement and syncopation, including accent in the *arsis*, a lack of reinforcement, and also passing agreement. In amongst this patterning, they capture and project a call to expression from a goddess, and a mamma’s boy’s groan in response:

χειρί τέ μιν κατέρεξε | | ἔπος τ' ἔφατ' ἔκ τ' ὄνομαζε·
“τέκνον, τί κλαίεις; | | τί δέ σε φρένας ἴκετο πένθος;
ἔξαύδα, μὴ κεῦθε | | νόω, ἵνα εἴδομεν ἄμφω.”
Τὴν δὲ βαρὺ στεναχῶν | | προσέφη πόδας ὠκὺς Ἀχιλλεύς· (I.361-4)

She patted him on his arm, spoke a line and called it what it was:
'Child, why are you crying? Why does sorrow reach you in your mind's
vessels?

Sound it out, don't cover it up in thought—so we both may know.
Groaning heavily he addressed her, Swift Foot Achilles:

ἔξαύδα: 'Sound it out' indeed. Each line divvies its phrases at different points—I find myself pausing at the mid-line word break, or caesura—a bit later in the case of 363, after νόω 'in thought'—but in each line we find the regular third foot agreement (κατέρεξε, κλαίεις, κεῦθε, στεναχῶν). In the first foot, however, there is no agreement at all (χειρί, τέκνον, ἔξαύ—, Τὴν δέ). The initial ictus is not reinforced by tonal prominence. (τέκνον on its own is oxytone on the penult, in which case there is agreement here. I read barytone on the ultima, because of the comma following as well as the following consonant in τί.) It is as though each line blurs into focus midway, then cascades, lands and resolves—or stages a new departure at line end. The fourth mid-line captures the wordless groan of Achilles in response, with a circumflected cadence on the omega of στεναχῶν (in our emended text courtesy of Gregory Nagy⁶ and Aristophanes of Byzantium). His name and epithet summon Achilles forward into the body of the rhapsode, as he readies to speak for his mother his catalogue of grievances.

So many generations of readers and critics have approached verses like these without assessing or even registering their musical intention and sound: metre cannot do this by itself, in any species of musical analysis. One knows nothing of the music by knowing the vowel values and quantities: one needs to know also which syllables are pitched and stressed, and with which portion of the rising and falling contonation, and where these land in relation to the metrical beat. Then one can begin to sing them with purpose to a humanly sentient audience, and awaken them in sympathy to the indwelling presence of a protagonist. The field of Homeric line design is now wide open, as one moves on in one's exploration to patterns of accentual reinforcement past the mid-line cadence causing the caesura, through to the retrogression⁷, diaeresis and coda. But all these patternings serve their transgressions, caused (so it seems) by the presence of moved consciousness within the lines, and a directed gaze peering out.

6 Gregory Nagy, 'Traces of an ancient system of reading Homeric verse in the *Venetus A*', in Casey Dué (ed.), *Recapturing a Homeric Legacy*, Cambridge MA: Center for Hellenic Studies, 2009, 156.

7 For the significance of retrogression, see *Ibid.*, 110, 114-15, 125-7, etc.

A significant variant at this location in Homer's lines is represented by words whose prominence is oxytone on the antepenult (proparoxytone), but whose non-prominent, short ultima is lengthened either by position or pause so as to fill the hexameter's third downbeat. Such a shape is *άνιστάμενος* in this line:

τοῖσι δ' άνιστάμενος || *μετέφη πόδας ώκός Άχιλλεύς* (*Iliad* 1.58)

And among them he stood up and spoke, Swift-Foot Achilles:

In relation to the usual barytonic cadence here, the oxytone variant on the antepenult, in the *arsis* of the second foot, sounds syncopated. It is in fact an anapæstic movement (υυ—), perhaps best understood as an anapæstic cadence pattern for mid-line. Here are examples from successive lines in the *Odyssey*:

έπρησεν δ' άνεμος || *μέσον ιστίον, άμφι δέ κῦμα*
στείρη πορφύρεον || *μεγάλ' ίαχε νηός ίούσης* · (2.427-8)

And the wind filled the middle of the sail, and on both sides the wave
Crashed purple, roaring round the keel as the ship made its way.

In these cases, *άνεμος* and *πορφύρεον*, the third downbeat is not prominent, but it is still the case that it is the word's accentual termination, its anapæstic shape, that motivates and causes the caesura. That the down-glide is not prominent does not mean that it is not there, however; one assumes it occurs in these cases over the two moras of the two short syllables following the acute. The vowel in the ultima does not lengthen; this would have caused a shift forward of the contonation. Yet the syllable 'counts' as long. A grammarian would likely classify this lengthening of a short ultima as a poetic, or at least a metrical licence. He might say that in these cases the ictus beat can itself close the syllable, making it long, without causing the contonation to thereby shift so as to land the down-glide on the ultima. But once we register the tonal reinforcement, we immediately recognise the modulation from dactylic to anapæstic, which is of course a modulation endemic to this metre. Sequences of dactyls (—υυ —υυ —υυ) turn into and interchange with anapæsts (υυ— υυ— υυ—) without a thought or any prompt, as do iambs and trochees, or tick-tocks to tock-ticks as one listens to a clock. The relationship between these natural pairs of inverse feet has been described as *έπιπλοκή*, or 'interweave'.⁸ A sequence of dactyls is identical to a sequence of anapæsts from a metrical point of view. It is also a sequence of amphibrachs (υ—υ υ—υ υ—υ). Only the starting point in the thesis, or either element of the *arsis*, determines the matrix, as to whether we fall with the dactyl, rise with the anapæst—or lurch with the amphibrach.

8 Thomas Cole, *Epiploke*, Cambridge, Mass.: Harvard University Press, 1988, 5.

It makes little difference if one interprets this variation as an anapæstic syncope or simply as an anapæstic cadence at mid-line. The important point is that metrical analysis cannot reveal this event. All it sees is a metrical licence and a caesura. In reality the metrical pattern is only a matrix of unrealised possibilities; it is the tonal prosody that actually creates the rhythm. The syllabic tonal prominence in words drives the modulations, free to introduce anapæstic momentum in a dactylic hexameter by its selective emphasis of the longums and breves, causing the rhythm to rise or fall at will. An oxytone-acute on the first breve in the arsis of a dactyl can cause the modulation instantly, even directly after a barytone on the thesis, at many places in the hexameter line. The oxytone acts like a starting gun.

We have seen this happen twice within successive feet, albeit to more a rocking than modulating effect, in πόρεσ-τέ τε, ἴσ-τέ τε. The oxytones in the arsis seem here to provide amphibrachic spice rather than modulation to a rising rhythm, however; in this line the prominent downbeats win out, it seems, with the falling rhythm of πάντα completing the phrase. At any rate, purely metrical analysis, as has had to prevail until now, must remain clueless about this level of action in the reality of the Homeric line. The metrical matrix needs reinforcement from the tonal prosody before there can be either rising or falling rhythm or genuine vocal melody. The very concept of the oral formula, which is at present entirely metrical, must therefore be revisited in light of the law of tonal prominence, before it can be decided whether it still has any use. Is there a place in Homeric or Indo-European studies for a kind of metrical-formulaic ‘deep structure’, underlying the actually sung tonal reality? On the surface it might seem that the Homeric composer is busily enough occupied with cadential cycles, rhythmic modulations, variations on a theme and taking his indulgent repeats, together with pleasing and striking tonal effects in the craft of music and song, to be bothered with such abstract atonal deep structure.

Genuine exceptions to the mid-line cadence pattern may be represented by oxytones on the ultima, made grave in mid-line (τετραχθὰ). Such words, like πυραὶ in this line from early in the *Iliad*, appear to suppress the expected third-foot cadence:

αὐτὰρ ἔπειτ’ αὐτοῖσι || βέλος έχεπευκές έφιεῖς
βάλλ’ · αἰί δὲ πυραῖ || νεκύων καίοντο θαμείαι. (1.52)

But then on the men themselves, arrow upon piercing arrow he took aim
and
Shot! And continually the corpses’ pyres were burning thick and close.

Suppression of an expected accent is also a syncope. This line clearly intends certain rhythmic special effects; the enjambment, elision and tonal emphasis of βάλλ’ bring into relief the dramatic onset of Apollo’s plague-ridden darts,

and may help explain a suppressed cadence in the aftermath as an offset. But it is possible that there was a convention, where the sense allowed, to pause in such a case at the mid-line cadence, and so release the ultimate oxytone.

Often, though, the sense does not suggest such a pause. Expectation is thereby cheated. But the cadence often is merely delayed; in I.52, for example, one lands on the fourth thesis with *νεκύων*. There are lines, however, where no caesura or mid-line cadence occur at all. *φαίηκες δολιχῆρετμοι* (Odyssey 8.369), for example, is a fully syncopated opening phrase with no caesura, and even prominent reinforcement of the third arsis rather than the third downbeat (*δολιχῆρετμοι*). *φαίηκες* begins the line also by reinforcing the arsis of the first foot. An off-beat lilt therefore characterises this recurring phrase. The pleasing quality of this effect would seem to motivate the recurrence. If Homer should be diagnosed with anything for his numerous repeated phrases, it is only by considerable presumption that this repetition is considered a symptom of orality, rather than self-indulgence. Homer exults in and riffs off the music of his phrases. There must be little use for formulas for the Phaeacians in the oral lending library, outside these people's episode in the Odyssey. Yet their musically evocative naming phrase seems to have been made for repeated use, an instant staple; the role of its rhythmic lilt would seem to earn its summons, without any significance in whether it was composed for the occasion or inherited. The first reinforcement of the thesis comes in the line's coda, at feet five and six: *φαίηκες δολιχῆρετμοι ναυσίκλυτοι ἄνδρες*, 'Of the Phaeacians, long in their oars, men famous for their ships.'

Off-beats only lilt, however, when they are rounded by regularity, as above. Otherwise they disturb and hint at chaos. Clearly unusual, and certainly non-formulaic, is Aeolus' remarkable sendoff to Odysseus upon his hapless return to the island of winds. Here even the coda stays on the off-beat:

ἔρρ' ἐκ νήσου θᾶσσον, ἐλέγχιστε ζῶόντων ·

"Buzz off out the island, and quick, you most detestable of things alive!"

Only the third foot caesura cadence (*θᾶσσον*) is on the beat. It seems forced, not a regularity but itself against the grain. It is the line's only dactyl. Every other foot is spondaic, and every other tonal prominence is long and lands in the *arsis*. Such successions of long syllables already convey the gravity of Aeolus' rejection, but surely it is the jarring off-rhythm of their reinforcing tones that most captures the weight of his repugnance and his judgement of irredeemability. The effect of this line is a revelation of the law of tonal prominence. His off-beat tones bring Aeolus to life.

Variety and even experimentation seem to me to be characteristic of this artist, but this attribute is not an escape clause for a critic: these concepts can only have any coherence in relation to paradigms of regularity. This is the musical idea of

variations on a theme. When we follow the patterns of lexical tonal prominence in Homer's usage, we discern and discover a prevalent regularity of accentual cadences. This regularity helps explain what had heretofore been understood as a caesura, merely a function of word division and metre. It is with and against this background of regularity that we experience his variety; it is where and how Homer plays. A line without a caesura is not a violation of anything at all, except the norm.

Homer does what he wants to, or needs to, in the service of story and song. Aeolus' ejaculation is a disjointed eruption from the musical order. It can be hard for a philologist to accept Homer's licence; the projection of his artwork upon an oral tradition serves to bind the poet-performer to certain inherited rules that must be posited. But the musical analysis reveals him constantly to be making choices; choices are inherent in the types of available tonic cadence, enjambment, as well as the word breaks which until now had assumed an all-importance. It turns out that choice is key to every development in the composition of an unfolding Homeric line of music, from cadence to turn to cadence. It may then become hard to see how such definite musical choices, between a limited array of options based on the tonal shapes of individual words, can be facilitated by the use of formulaic phrases exhibiting only economy and extension. The formulaic theory began precisely not to facilitate choice, but to limit the need for it in the pressing moment of oral composition. In music, by contrast, we follow a composer's choices. Nevertheless, the rules and patterns of Homeric versification are very real: they only need to be understood as rules of characteristic behaviour, not as rules of composition.

Finally, there is found in Homer also, rarely, accent in the third arsis, as immediately with $\mu\upsilon\pi\iota'$ || in line 2 of the Iliad, or $\Lambda\eta\tau\omicron\upsilon\varsigma$ καὶ $\Delta\iota\omicron\varsigma$ υἱός ||, in line 8. If one aim of the mid-line cadence is to divide the hexameter with a pleasing asymmetry, these oxytones in the third off-beat also accomplish the effect. The notion of aesthetic asymmetry points to a genuine role for word division in Homer, not in the form of a requirement but of a proscription. A word cannot begin with the fourth foot of the hexameter without making the line seem to divide equally into two halves. This is precisely the pendular effect characteristic of the French alexandrine. The French line's aesthetic is for bilateral symmetry; English and Greek seem to prefer asymmetry in their stichic lines, or rather, an aesthetic near-symmetry. Again, there are rare exceptions:

$\delta\omega\kappa\acute{\epsilon}\nu$ $\rho\omicron\iota$ πέλεκυν μέγαν, ἄρμενον ἐν παλάμῃσι, (Odyssey 5.234)

She gave him a big axe, fitted to his palms ...

This line has a 'forbidden' central diaeresis. It splits in two at the comma. There is likely a mimetic purpose for this exceedingly rare effect. The equalised rhythm seems appropriate to the fit of Calypso's axe to Odysseus' hands, and the ensuing jointure of his sea-worthy raft.

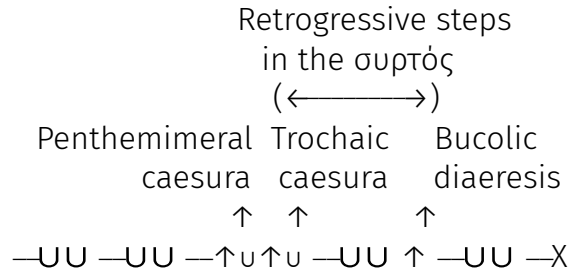
Such an aesthetic proscription against a central diaeresis between the third and fourth feet for Homer's hexameter can also be seen to explain why there needs to be a word division within the third foot—that is, the caesura. But such a negative aesthetic as an explanation for this phenomenon would seem to be superseded by a positive aesthetic description in the terms borrowed from Plato: the movement from the beginning of an hexameter to its middle is characterised in the main by a movement from disagreement between lexical accent and metrical ictus, to agreement in the third foot.

Why is this a revelation? Why is this disclosure about a prosodic landing point on the third downbeat of the hexameter, not simply a footnote to the usual, the pseudo-mathematical analysis by longums and breves (— ∪ x) of ancient poetry, into elaborate, static metrical patterns? Because it demonstrates a melodic and rhythmic motive in a context of purely musical desire, which dictates the choice and emplacement of words where they fulfil that desire. This is not word breaks causing arbitrarily necessary 'cuts' in feet. It shows that there is a poet in the machine. He is not a trailing or revenant ghost, but a wilful intention speaking its purpose through the changes, in pitch and rhythm. This ancient Greek poet arranges words not only according to their whole metrical shape, but with a special focus on each single most tonally prominent syllable, with a view to its landing on one of the spots in the sequence of long and short steps of the hexameter, where it *sounds good*. These are not words fitted into schematics, but words punching and sliding and gracing their way among the beats of an hypnotic cycle. Homer and Penelope are inside there breathing out, like Odysseus tensed in the wooden horse, as surely as Hamlet lives in *Hamlet*.

The cadence pattern is ubiquitous. Stichic lines commonly tend to seek a cadence somewhere near mid-line—perhaps to satisfy a feeling of balance, or the sense of passing a rhythmic fulcrum. The theory of the disyllabic contonation reveals Greek stichic verses to be no exception. The new theory now generates what had used to be an ad hoc metrical given in Homeric studies—the mid-line caesura, a supposedly 'required' word break in the middle of the third foot—as in fact a by-product of the purely musical desire to reinforce the metrical ictus near mid-line with tonal prominence. But this persistent musical desire, or pulse, finally serves a dramatic realisation and emergence that spills over into vitality, will and consciousness. This is a trick of all the great dramatic verse, but students and citizens can now see for themselves that Homer's is no exception.

In my first book I describe the peculiar articulations and inflection points of a six-measure version of a *συρτός*, a modern dactylic folk dance of seemingly ancient provenance.⁹ I here reproduce the schematic without the analysis, for its form and suggestion:

9 David, *Dance of the Muses*, 102-111, 115.



Just as the description of a dance can greatly simplify the picture given by metrical analysis, whose polysyllabic technical nominalisms articulate only the side effects—the hints of spent musical events—the tonal picture also clarifies the movement underlying these word breaks in the aesthetic of the whole Homeric line. Philology points to three apparently unrelated phenomena: a choice of caesura, often a late diaeresis, and then anceps in the final foot, a choice of ending. It turns out that what shapes a generic hexameter line are in fact two cadence points, moments where tonal prominence and the beat land together, mid-line in the third foot, and then in the final foot. In between is a moment unique, so far as I know, among typical stichic forms, like the French alexandrine or English pentameter, of ‘turn’. But there are two main cadences, moments of landing. Caesura-diaeresis-anceps becomes, intelligibly and sensibly and musically, cadence-turn-cadence.

At each of these stages there is choice. At line end and at mid-line, the prevailing cadences are traditionally described as either masculine or feminine, as prominence occurs on either the ultima or the penult. In each case there is the same simple, but absolute, choice of cadence, with some significant variants at mid-line: ultima stress (‘masculine’), or stress on the penult with a short ultima trailing (‘feminine’). These are the only two positions possible for barytonic prominence, which evidently best conveys the desired effect of weight. (At mid-line we have pointed also to a significant anapæstic variant.) But the simple parallelism of the scheme is belied by the atonal analysis in terms of ‘caesura’ and ‘anceps’. Here is the harmonic truth: the recessive contonation of the Greek language affords a choice of tonal cadence at mid-line and a choice of tonal cadence at line end. In between, there is also a choice demonstrated for the ‘turn’: either a diaeresis—a new word beginning the fifth foot—or a tonal prominence on the fifth thesis.¹⁰ This articulation, of either kind, allows the fifth and sixth feet often to merit their description as a ‘coda’.

Hence the tonal reality of Homeric line design, in its broadest outline, is not the caesura-diaeresis-anceps of philology, but cadence-turn-cadence, with a choice of cadence, and a choice of turn (between prominence or diaeresis or both). Homer, and music itself, are not metaphors for regularity; they are each

¹⁰ Ibid., 122.

equally about exceptions and licence and (in a word) freedom—not from rule but under rule. Choice is made and displayed throughout. Unlike the hypothesised oral singer, filling his line with ready-made formulas, the one thing an Homeric composer evidently must continually do in his line, among musical alternatives at key points, is *choose*. While choosing his words, he is also choosing his turns and his cadences.

When he applies the law of tonal prominence, the reader will find for himself the variety of Homer’s choices and figures as he composes a line. But we must again emphasise that ‘variety’ has its musical sense here; it is not an escapism or a vague ‘anything goes’. It is an expression of communicative, biological life in variation. There is in fact a baseline, an harmony of a line whose shape recurs like a familiar face. Typical is the first line of *Odyssey* 12:

αὐτὰρ ἐπεὶ ποταμοῖο λίπεν ῥόον Ὀκεανοῖο

But when she left behind the current of the river Oceanus,

The first tonal reinforcement occurs at the third foot cadence, thereby offsetting it as such; the feminine cadence is immediately followed by a masculine one in the fourth foot. This immediate alternation of cadence is quite common. λίπεν ῥόον fills the retrogression; ῥόον modulates the turn, which is marked this time by diaeresis rather than prominence, with the flow of Ὀκεανοῖο and its feminine cadence at the end. Soon after we get a line that is something of a refrain in the *Odyssey*:

ἦμος δ’ ἠριγένεια φάνη ῥοδοδάκτυλος Ἥφώς,

And when the early-born child appeared, Eos Rose-Fingers,

A refrain helps stabilise the variety. Again we have the alternation of cadence, with the feminine ἠριγένεια at mid-line, and masculine φάνη in the fourth foot. φάνη ῥοδο- fills the retrogression; the coda is offset this time by accent rather than diaeresis, -δάκτυλος Ἥφώς. The final cadence is masculine. The music of dawn is our baseline.

One last hint about Homer’s predilections: he loves certain syncopations, especially a succession of long syllables with prominence landing in the arsis rather than either downbeat. Σειρήνας at the beginning of a line is an example, but they can occur all over; they are a siren-song. Often this involves spreading the contonation, *udatta-svarita*, over *thesis* and *arsis*, so that the down-glide lands on the upbeat or *arsis*; e.g. διώκοντες. There is in fact scarcely a name that Homer will not syncopate (Ὀδυσσεύς, Ἀχιλλεύς, even ναῦς), lengthening vowels and shifting prominence: it is evidently this singer’s joy, to syncopate his nouns amidst his returns to dawning cadence.

'Emphasis' is clearly a concept that bridges the realms of sound and meaning. Moments of rhythmic and harmonic emphasis are caused by the arrangement of words, enclitics, pauses and line ends, the last three of which can release the oxytones on the ultimas which would otherwise be suppressed as grave. It would be most strange, unthinkable really, that such composed musical moments could be irrelevant to the emphases in the unfolding of the narrative as such, or the rhetoric or emotion of a speech. But the latter seem like conscious efforts in the art of human communication. The emphases of inherent prosody seem rather pre-conscious features of language; one inherits the pronunciation of words, and every word is emphasised on a particular syllable. It is never explained to children why this should be so. But they make fun of each other when they get words wrong.

Accentuation rarely affects the decoding work of translation; translation of Greek, at any rate, has proceeded without any insight into accentuation. It makes sense that certain words should be more important, more emphasised, than others in rhetorical or emotional expression. But why at a prior stage of consciousness, should a human mind pick out one syllable among the others, in a way that mystifies a computer, in order simply to speak a word? It seems that it is in this 'in between' realm, between pre-conscious and conscious emphasis, that music, and the music of Homer, lives.

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