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**11**

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# Rhythmic Patterns in Pindar's Odes

Luciano Garosi



*For Eugenio*



Rhythmus per se sine metro esse potest,  
metrum sine rhythmo esse non potest.

Mar. Vict. *Ars Palaemonis de metrica institutione*  
(*GLK*, VI, 206)





*This work aims to demonstrate how Pindar in his dactylo-epitrite odes conceived rhythmic structures made up mostly of two elements, different from those of the traditional D/e system. Studying the connection between these two elements it is possible to discover some hidden numerical relationships within the stanza-forms. This method for measuring Pindar's odes eliminates the use of link ancepts and allows the discovery of some hitherto unknown characteristics of the colometric division. A short form of this essay was presented at the annual meeting of "Damon", 1st November 2019, Les Diableretes, (Switzerland). The author is grateful to Michele Ignelzi for his suggestions and corrections to this text.*



## 1. The D/e system and the A/B rhythmic elements

Usually Pindaric dactylo-epitrite<sup>1</sup> metres are described using the D/e system:<sup>2</sup>

- D =  $\text{—}\cup\cup\text{—}\cup\cup\text{—}$  a *hemiepes*, whose rhythmic length is 10 beats<sup>3</sup>;
- e =  $\text{—}\cup\text{—}$  a cretic foot of 5 beats;
- E =  $\text{—}\cup\text{—}\text{—}\cup\text{—}$  two 'e' elements joined by a long syllable.

Often a link *anceps* ( $\text{—}$ ), usually a long syllable, is positioned before, after or between D and e.<sup>4</sup> There is no evidence of a rule that governs the presence or the absence of this link *anceps*.

As an example, tab. 1 shows the metrical analysis of Pindar's O3, carried out with the D/e system, according to the Snell/Maehler edition. These elements have very different lengths: D = 10 beats, e = 5 beats, E = 12 beats, link *anceps* = 2 beats or only one in the case of a short syllable. Thus, rhythmically speaking, it is difficult to imagine that they can form a coherent combination. It is also worth noting that, following the Aristoxenian theory, a unit as short as the link *anceps* is, cannot even form a rhythmic foot.<sup>5</sup> On this issue here is the statement of Lionel Pearson: «The whole notion of *syllabae ancipites* is also alien to rhythmical theory».<sup>6</sup>

**Tab. 1 - O3 according to Snell/Maehler**

<p>Strophe</p> $D-e \dot{:} -D  ^2 -D-e   ^3 -D-   e-D   $ $^4 -e-   E-D-e   ^5 E-e-   $
<p>Epode</p> $E- \dot{:} D  ^2 e-D \dot{:} - \dot{:} E   ^3 D   - D -   e   $ $^4 D   - e -   D   ^5 E-e-   $

As West declares, the union of such different elements cannot be the way in which Pindar originally conceived the structures of his odes:

It should be appreciated that this is merely a convenient method of notation, not an 'etymological' analysis. The 'link-syllable' is a false concept as far as the process of creation is concerned.<sup>7</sup>

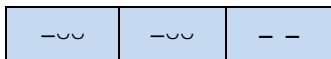
From a rhythmic point of view, it is important to analyse the structures of the odes trying to identify the rhythmic elements that Pindar *really* used. It is possible to detect these

components only if we refrain from considering the link *anceps* as an isolated element and instead we incorporate it into elements D and e.<sup>8</sup>

Indeed Pindar constructed his odes without any link *anceps*. They were composed mostly of two rhythmic elements, quite similar to D and e, here named A and B.

- A is an element of 12 beats, constructed with three feet of 4 beats each: two dactyls and a spondee.<sup>9</sup>

Rhythmic element A



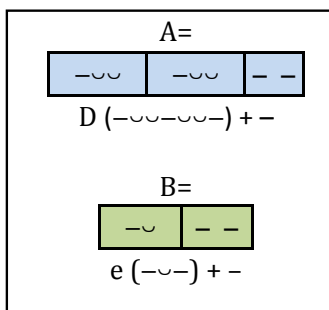
- B is a trochaic-epitrite of 7 beats, constructed with two feet, a trochee and a spondee.<sup>10</sup>

Rhythmic element B



Comparing elements A and B with D and e, we observe that element A is equal to D plus a long syllable; similarly element B is equal to element 'e' plus a long syllable.

**Tab. 2 – Comparison between A/D and B/e**



Pindar built the 23 dactylo-epitrite odes mostly using A and B, which represent 92.2% of all the rhythmic elements used.

Besides A and B, there is a small group (7.8%) of different elements (mostly variations of element A) with a rhythmic length of 8, 16 or even 20 beats. These irregular elements, here called red elements, will be illustrated below.

All the elements (A, B, and red) have a spondaic foot as ending clausula. In this system the ending spondee that closes the rhythmic elements has a great importance, because in this foot many significant phenomena occur.

Let us now turn to the same scheme of O3, one of the simplest stanza-forms<sup>11</sup>, according to the A/B system and in comparison with the D/e system.

The subdivision of the *cola* adopted is that of the *Scholia metrica vetera*.<sup>12</sup>

**Tab. 3 – Rhythmic and metric scheme of O3,  
in comparison with D/e system**

pp							D/e			
1	---	---	---	---	---		1	D - e	A	Bp
2	-	---	---	-				- D	Ap	
3	-	---	---	---	---		2	- D - e	A	Bp
4	-	---	---	---			3	- D -	A	
5		---	---	---	---			e - D	B	Ap
6	-	---	---				4	- e -	B	
7		---	---	---	---			E -	B	B
8		---	---	---	---	- $\bar{\lambda}$		D - e	A	Bc
9		---	---	---	---	---	5	E - e -	B	B
1		---	---	---	---		1	E -	B	B
2		---	---	- $\bar{\lambda}$				D	Ac	
3		---	---	---	---	-	2	e - D	B	Ap
4	-	---	---	---	- $\bar{\lambda}$			- E	B	Bc
5		---	---	---			3	D   -	A	
6		---	---	---	---	- $\bar{\lambda}$		D -   e	A	Bc
7		---	---	---	---		4	D   - e -	A	B
8		---	---	- $\bar{\lambda}$				D	Ac	
9		---	---	---	---	---	5	E - e -	B	B

**Orange** = CATALEXIS (no link *anceps* between elements D and e)

**Purple** = PROCEPHALIC POSITION (link *anceps* before elements D and e)

On the left of the table the analytic scheme with elements A and B is shown, subdivided into rhythmic feet; on the right the same scheme, but with synthetic abbreviations A and B. In the middle section is the corresponding D/e metric description.

In the rhythmic scheme there is no need for link *anceps*: in the transformation from the D/e system into the A/B system we have to consider and to recognise two phenomena: catalexis (highlighted in orange) and procephalic position (highlighted in purple).

Catalexis occurs when there is no link *anceps* between D and e. In this case the element A or B is catalectic in the last foot (tab. 3, *colon* s8 and *cola* e2, e4, e6, e8). Procephalic position occurs when the link *anceps* at the beginning of the *colon* is collocated before D or e: this syllable is considered in procephalic position (the 'pp' column on the far left of tab. 3, *cola* s2, s3, s4, s6 and *colon* e4). These two phenomena are discussed and analysed further in specific paragraphs.

When the long syllable of the link *anceps* follows the element D or e, which is the most common case, this syllable is incorporated at the end of A and B and completes the spondee that closes the rhythmic element, as shown in tab. 2.

If the link *anceps* takes the form of a short syllable, instead of the more common long one, the last spondee becomes a trochee (no examples in tab. 3). The rhythmic realization of this foot is discussed in paragraph 7 – *The short form of the link anceps*.

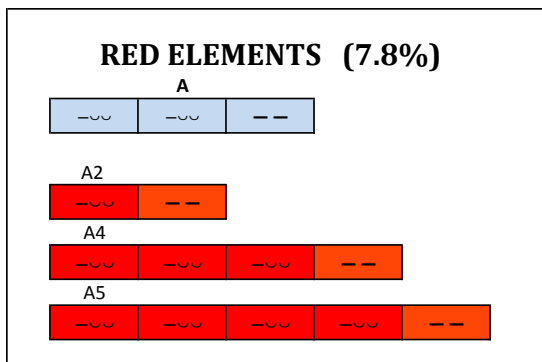


## 2. Red elements

### (variations of the A rhythmic element)

A and B are not the only rhythmic elements with which the dactylo-epitrite odes are constructed, in spite of being the most part of them (92.2%). There is also a small group of different elements (7.8%) which in the schemes here proposed are highlighted in red. These elements are variations of element A because, like element A, they all have a dactylic rhythm, but in comparison with A they have a different number of feet. In fact, element A has three feet, whereas red elements can contain two, four or even five feet. Here are the basic forms of red elements:

**Tab. 4 – Red elements in comparison with A element**



Tab. 5 - Rhythmic scheme of P4

1	pp	-u	--	-uu	-uu	-λ		B	Ac	
2		-u	--	-uu	-uu	-		B	Ap	
3		-	-u	--	-uu	-uu	-λ		B	Ac
4			-u	--	-uu	-uu	-		B	Ap
5		-	-u	--	-u	--			B	B
6			-uu	-uu	-				A4p3	
7		-uu	-u	--	--					B
8			-uu	-uu	-				Ap	
9		-	-u	--	-u	-λ			B	Bc
10			-u	--	-u	--			B	B
11			-uu	-uu	-uu	-λ			A4c	
12			-u	--	-u	--			B	B
13			-u	-	-u	-λ			BC	Bc
14			-uu	--	-u	--			BS	B

1		-u	--	-uu	-uu	-		B	Ap
2	-	-u	--	-u	-λ			B	Bc
3		-uu	-uu	-				Ap	
4	-	-u	--	-uu	-uu	-λ		B	Ac
5		-u	--	-u	--			B	B
6		-uu	-uu	-λ		-uu	-	Ac	A2p
7	-	-u	--	-u	-			B	Bp
8	-	-uu	-uu	-				Ap	
9	-uu	-uu	-uu	-				A4p	
10	-	-u	--		-u	-		B	Bp
11	-	-u	--	-uu	-λ			B	A2c
12		-u	--	-uu	-uu	-		B	AC
13		-u	--	-u	--			B	B

As shown in tab. 4, A2 is an element of 8 beats, composed of two feet: a dactyl and a spondee. A4 is a rhythmic element of 16 beats, composed of four feet: three dactyls with a spondee

at the end. A5 has four dactyls and a spondee.<sup>13</sup> It is relevant that all these red elements, as well as A and B, have a closing spondee, with or without catalexis.

As an example, tab. 5 is the rhythmic scheme of the ode P4, in which some red elements are shown, also with catalexis (orange foot) and in procephalic position.

Among the 23 dactylo-epitrite odes there are only two of them without red elements: O3 and N9.

In tab. 6 for each type of rhythmic element (A, B, and red) the total occurrences in the 23 odes are given, taking the repetitions of all stanzas into account. As previously said, A and B elements represent 92.2% of the rhythmic elements used in the odes.

**Tab. 6 - Total rhythmic elements  
(absolute occurrences including repetitions)**

rhythmic elements	absolute numbers	%
A	1517	29.7%
B	3195	62.6%
RED	399	7.8%
TOTAL	5111	

A + B = 4712 92.2%

### 3. Catalexis

Catalexis, here marked with a foot in orange colour (cf. tab. 3 and 5), occurs when the spondee, which ends all rhythmic elements, is incomplete: i.e. the last foot has only one long syllable. In this case the foot must be completed by adding a two-beat rest, the  $\lambda\epsilon\tilde{\iota}\mu\mu\alpha$ , or by prolonging the long syllable (the only syllable present in this foot) to a four-beat syllable (tetraseme).<sup>14</sup> In all the dactylo-epitrite odes catalexis occurs only in the last foot of the rhythmic elements, the closing spondee, without any exception.

When catalexis is followed by word-end in all stanzas (full word-end), the foot is here represented with a long syllable and a two-beat rest ( $\bar{\lambda}$ ). In this case the rhythmic element is indicated by the abbreviations Ac or Bc.<sup>15</sup>



The syllable which precedes the full word-end can be long or short ( $\simeq$ ). When a short syllable takes the place of the long one (the so-called *brevis in longo*) a three-beat *leimma* is needed ( $\simeq || \bar{\lambda}'$ ).<sup>16</sup>

When the catalexis is not followed by full word-end, but after it there is at least one bridge ( $\rightarrow$ ), the catalectic foot is

represented with a tetraseme syllable (⌊). In this case the rhythmic element is indicated by the abbreviations AC or BC.



Rhythmically speaking both of the solutions proposed above are equivalent to a spondaic foot, as they have the same length (4 beats):<sup>17</sup>



Therefore the elements A, Ac and AC are rhythmically equivalent, since they all have 12 beats; likewise elements B, Bc and BC are similar, since they are 7 beats long. Also red elements can have these catalectic forms.

In tab. 7 the occurrences of the different types of rhythmic elements A and B, with or without catalexis, are shown.<sup>18</sup>

We must distinguish between external catelexis, which occurs at the end of the *colon*, and internal catalexis, which occurs within the *colon*.

In tab. 8 some examples of internal and external catalexis in the N11 are shown. In this scheme there are also A2 catalectic red elements. The catalectic feet are highlighted in orange.

**Tab. 7 – Elements A, Ac and AC (12 beats)**  
**– Elements B, Bc and BC (7 beats)**

A, Ac, AC – 12 beats			B, Bc, BC – 7 beats		
	1024	67.5%		2574	80.6%
	374	24.7%		458	14.3%
	88	5.8%		114	3.6%

**Tab. 8 – Rhythmic scheme of N11**

pp	1									B	A	Bc	
	2										B	B	A
	3										A	Ac	
	4										B	B	Bc
	5										A2C	BC	
	6										B	A2c	
	1									A			
	2									Ac			
	3										B	AL	Bc
	4									Ap			
	5									A			
	6									Ap			
	7									A2C	Bc		
	8									B	B	Bc	
	9									BC	B	Ac	

In this ode, for example, there are five external catalexes in the strophe, four of which are followed by full word-end (s1, s3, s4, s6) and one by a bridge (s5). In s1 and s4 the catalectic element is Bc, in s3 it is Ac, in s6 the catalectic element is a red A2c. In all these catalectic elements the last foot consists of a long syllable followed by a two-beat rest, instead of the common ending spondee. In s5 the catalectic BC element has a four-beat prolonged syllable, on the basis that in this foot there is at least in one case a bridge (no full word-end). This occurrence does not allow the insertion of a rest after the catalexis. In the N11 there are three internal catalexes, two A2C (s5 and e7) and one BC (e9).





Considering the 23 stanza-forms of dactylo-epitrite odes, we have these occurrences of external and internal catalexes:

**Tab. 9 – External and internal catalexes**

<b>TOTAL CATALEXES</b>	<b>201</b>	
<b>EXTERNAL CATALEXES</b> at the <i>colon</i> end	<b>178</b>	<b>88.6%</b>
<b>INTERNAL CATALEXES</b> within the <i>colon</i>	<b>23</b>	<b>11.4%</b>

In tab. 10 the occurrences of catalexes followed by full word-end and catalexes with bridge are shown.

**Tab. 10 – Types of external and internal catalexes**

<b>EXTERNAL CATALEXES</b>				
with full word-end		149	74.2%	
with bridge		29	14.4%	
<b>INTERNAL CATALEXES</b>				
with full word-end		8	3.9%	
with bridge		15	7.5%	

External catalexis followed by full word-end has the greatest number of occurrences, 74.2%; internal catalexis followed by full word-end has the smallest number of occurrences, 3.9%.

The catalexes with bridge that have a prolonged four-beat syllable are very interesting. In this case the catalexis does not indicate a point of rest or a caesura in the rhythmic scheme of the ode, but rather the author's intention of emphasising some special words by giving an extra length to



a common two-beat long syllable.<sup>19</sup> Some examples of these words are given in paragraph 11 – *Textual appendix a*): proper names, gods, heroes, kings, commissioners, winners, cities and geographical names are put in evidence by this four-beat long syllable.

#### 4. Closing spondee and word-end<sup>20</sup>

Catalexis always occurs at the end of a rhythmic element and always concerns the last syllable of the ending spondee. There is no exception to this rule, i. e. catalexis never occurs in any other foot of the rhythmic element except the last one.

It seems that the closing spondee of each element has the function of a rhythmic clausula. In fact, not only does the catalexis occur in this part of the rhythmic elements, but so does the full word-end. When there is a word-end in the same position of the *colon* in all stanzas, i.e. a full word-end, it always occurs in the last foot of the rhythmic elements, the ending spondee.

In the 23 stanza-forms of the dactylo-epitrite odes there are 292 full word-ends; 284 of them (97.3%) occur in the closing spondee.<sup>21</sup> In A and B elements there are no exceptions to this pattern. In fact, the remaining 8 cases are collocated in the middle of red elements.<sup>22</sup>

**Tab. 11 – Full word-ends in the 23 stanza-forms**

<b>TOTAL FULL WORD-ENDS   </b>	<b>292</b>	
<b>in the last spondee</b>	<b>284</b>	<b>97.3%</b>
<b>in other places</b>	<b>8</b>	<b>2.7%</b>

There are three possible positions for the word-end in the last spondee: after catalexis, between the two long syllables and after the two long syllables. Here are the occurrences of these three types:

**Tab. 12 – Full word-end position**

-    λ	149	51%
- -	95	32.5%
-    -	40	13.7%

In the spondee, as well as in the catalexis, the syllable which precedes the full word-end can be long or short (≠). When a short syllable takes the place of the long one (*brevis in longo*) a one-beat *leimma* is needed after the word-end (≠λ|| or λ||≠).<sup>23</sup> The form ≠→-, without word-end, does not occur; the form -≠→ (107 cases) is analysed in paragraph 7 – *The short form of anceps*.

The fact that catalexes and full word-ends occur only in the last spondee, with just a few exceptions, confirms that rhythmic elements (A, B and red) are conceived almost as integral units, and that their ending, the closing spondee (with or without catalexis), has the role of a rhythmic clausula.



The procephalic phenomenon concerns the moving of a syllable of a rhythmic element (A, B or red) to the beginning of the following *colon*.<sup>24</sup> Rhythmically speaking, this syllable in procephalic position (mostly a long syllable) belongs to the previous foot, which is left incomplete in the preceding line.

Normally in the D/e system this syllable is classed as an isolated *anceps* at the beginning of a *colon*, but it is in fact the closing half of a foot left incomplete in the previous *colon*. In the examples above, the procephalic phenomenon split up the last spondee of elements A and B into two separate long syllables. When this phenomenon occurs, the rhythmic element is here marked with the letter 'p' (Ap, Bp or A2p, A4p, A5p for red elements).




According to the *Scholia metrica vetera*, in all the 23 stanza-forms of dactylo-epitrite odes there are 475 *cola*. Within this number 125 of them are procephalic (tab. 14).

**Tab. 14 – Procephalic elements in the 23 stanza-forms**

<b>Ap</b>	A elements in pp	<b>60</b>	48%
<b>Bp</b>	B elements in pp	<b>43</b>	34.4%
<b>Ap red</b>	red elements in pp (A2, A4, A5)	<b>22</b>	17.6%
<b>TOTAL PP</b>		<b>125</b>	

The following data show that Ap procephalic rhythmic elements are divided in the middle of a foot, mostly in the last spondee (76.7%); in the other cases (23.3%) one of the dactyls is divided into two parts, with two short syllables in procephalic position. There is only one case that shows the division in the middle of the first foot (p1): it occurs in N8s6/7.<sup>25</sup>

**Tab. 15 – Procephalic division<sup>26</sup> in A elements**

TOTAL Ap		60
<b>p3</b>		46 76.7%
<b>p2</b>		13 21.7%
<b>p1</b>		1 1.6%

All of the 43 cases of Bp (procephalic B element) are divided in the ending spondee:

**Tab. 16 – Procephalic division in B elements**

TOTAL Bp		43	
p2		43	100%

The 22 cases of procephalic red elements contain 11 with the division in the last spondee and 11 with the division in the middle of a dactylic foot (tab. 17).

Considering all these records, we may ascertain that the procephalic phenomenon obeys a strict rule: *it always divides a foot in its middle*. There is no exception to this rule. This division (80%) occurs mostly in the last spondee (see tab. 18).

Among the 100 cases of division in the last spondee, there are 8 cases in which in some strophes or epodes the last syllable alternates with a short one. This phenomenon is a variation due to the link *anceps*; its occurrence (3%) does not change the reliability of the data above proposed. These 8 cases are analysed in paragraph 11 – *Textual appendix c*).

Tab. 17 – Procephalic division of red elements

TOTAL REDp		22
A2p2		5
A4p2		1
A4p3		9
A4p4		5
A5p3		1
A5p5		1
Divided in the last spondee	11	50%
Divided in the other feet	11	50%



**Tab. 18 - Procephalic division in the last spondee  
and in the middle of a dactyl**

<b>TOTAL PP</b>	<b>125</b>	
<b>in the last spondee</b>	<b>100</b>	<b>80%</b>
<b>In the middle of a dactyl</b>	<b>25</b>	<b>20%</b>

## 6. Colometric division

In this paragraph some occurrences are presented which display a strong coherence between the ancient division of *cola* (provided by the *Scholia metrica vetera*) and the A/B rhythmic system proposed here. This relationship between ancient colometry and A/B system can be summarised by a rule that governs the ending of the *cola*: a *colon* ends with either a full rhythmic element (with or without catalexis) or with a procephalic rhythmic element (i.e a foot divided in its middle).

There are only two exceptions (0.4%) to this rule which, on the other hand, perfectly applies to all the other 99.6% of cases. In fact, following the *Scholia metrica vetera*, in the 23 stanza-forms there are 475 *cola*: analysing each *colon* with the A/B system, we obtain the occurrences shown in tab. 19.

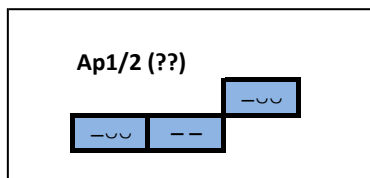
Ending with a full rhythmic element (348 cases) means that at the end of the *colon* we find the last foot of A, B or red elements. This foot is the common ending spondee, with or without catalexis. The data concerning the 125 endings with procephalic division were given in the previous paragraph.

The two exceptions occur in N8e4/5 and in I6s11/12 and consist of an A element split up between two complete dactyls, i.e between the first and the second foot: these are the only two cases that do not follow the general rule (tab. 20).

**Tab. 19 – *Cola* endings in the 23 stanza-forms  
(synthetic scheme)**






<b>COLA</b>	<b>475</b>	
<b>Ending with a full rhythmic element</b>	<b>348</b>	<b>73.3%</b>
<b>Ending with PP in the middle of a foot</b>	<b>125</b>	<b>26.3%</b>
<b>Ending with division between two feet</b>	<b>2</b>	<b>0.4%</b>

**Tab. 20 – Irregular *colon* ending with division  
between two dactyls (N8e4/5 and I6s11/12)**



The occurrences previously shown in tab. 19 are presented in tab. 21 in a more detailed scheme: here the data of the different types of ending of the rhythmic element are given, considering the various forms that the last foot can assume: that is to say, with or without catalexis.

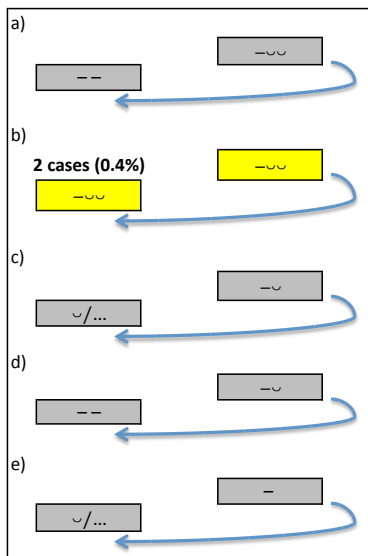
**Tab. 21 – *Cola* endings in the 23 stanza-forms  
(analytic scheme)**

COLA	475				
Ending with a full rhythmic element	348	73.3%		88	18.5%
				80	16.8%
				147	30.9%
				30	6.3%
			other	3	0.6%
			Ending with PP in the middle of a foot	125	26.3%
In the middle of a dactyl 	25	5.4%			
Ending with division between two feet	2	0.4%			

Among the 348 cases of *cola* ending with a full rhythmic element, 147 (30.9%) have catalexis and full word-end, 88 (18.5%) have full word-end following the closing spondee. These two types represent 49.4% of all the 475 *cola*. There are 80 cases which end with a full acatalectic rhythmic element followed by a bridge (16.8%) and 30 (6.3%) with bridge and catalexis. There are also 3 cases (0.6%) that present alternative types of ending.<sup>27</sup>

In tab. 22 we see the possible divisions between two *cola* that do not follow the rule declared above.

**Tab. 22 – Excluded *cola* divisions**



- a) division of the A element between the dactyl and the closing spondee;
- b) division of the A element between two dactyls;
- c) division of the A element between the two short syllables of the same dactyl;

- d) division of the B element between the first foot (trochee) and the ending spondee;
- e) division of the B element between the two syllables of the first foot.

None of these cases is found in the division of *cola* indicated in the *Scholia metrica vetera*, except the two occurrences of type b) which perhaps should be considered as suspicious.

From these data we can establish that, whoever did the colometry of these odes knew the rhythmic structure (A, B, and red elements) and its division into rhythmic feet.

All the rhythmic elements seem to maintain their unity, which is never broken by a full word-end, except in the last spondee.<sup>28</sup> When a rhythmic element is divided into two parts, i.e. when the procephalic phenomenon occurs, it always happens in the middle of a foot. It seems as if splitting up a rhythmic element in the middle of a foot would be a way of indicating the continuity of the sung text between the two *cola*. In fact, someone who knows the rhythmic structure and its division in feet, in reading or singing the text can easily understand that, in the case of a foot divided between two different *cola*, the end of the first *colon* is not supposed to admit any caesura or ending clausula.

Thus the rule that governs the division of the *cola* can be confirmed: the end of a *colon* occurs

- a) with the end of a rhythmic element (A, B or red) with or without catalexis;
- b) in the middle of a foot (procephalic phenomenon) mostly in the last spondee.

This rule proves that there is a strong coherence between the rhythmic elements here proposed and the ancient colometry described in the *Scholia metrica vetera*.

This is not the occasion for giving space to the controversy about the colometric division, but the data presented seem to confirm the thesis of Jean Irigoien, who supported «l'ancienneté de la colométrie traditionnelle».<sup>29</sup> These results can be achieved when the method of the analysis takes into account not only the metrical disposition of the syllabic durations but also the true rhythm that was used in ancient performances. On this subject the following statement by Tom Phillips is clear:

The metre of a poem is not necessarily a sure guide to how it would have been performed, as syllabic quantities are only part of what constitutes rhythm as realized in performance: syllables can be sung with varying duration, so altering the tempo of the piece.<sup>30</sup>

This sentence, which is a good introduction for the next paragraph, gives importance to the musical rhythmic analysis of the ancient sung texts; an analysis that could recreate the different aspects of the performance, going beyond the mere metrical description of the text. The current status of this relationship between music and metrics is well outlined by Andrea Tessier:

Il metricologo greco ignora, in genere, quasi programmaticamente i dati desumibili dallo studio, per quanto difficile e accidentato, della musica greca. Tanto nel migliore dei casi: nel peggiore, egli tenta di calare sul versante performativo, ipotetico per sua stessa definizione, le rigidità – prima logico-scientifiche che documentali – del proprio sistema, costruendosi una realtà musicale antica illusoria, in realtà mera proiezione della teoria metrica, quasi quest'ultima presentasse valore fattuale.<sup>31</sup>



## 7. The short form of *anceps*

As we have already said, in the present system of rhythmic analysis there is no need for link *anceps*. Now we see in detail what happens when there is an alternation between a long and a short syllable in the same place of the metrical scheme. In this case, the question of what time value to give to an *anceps* has always been controversial. On this topic a statement by Maas declares:

The problem of the time value of the *anceps* is one of fundamental importance. If we suppose that the time value differed according to whether the syllable was long or short, it follows that the line as a whole has no fixed rhythm. But the apparent metrical licence may have arisen simply because the time value of the *anceps* lay somewhere between that of the longum and that of the breve, and this assumption involves fewer difficulties than the former one.<sup>32</sup>

Maas devoted special attention to the second solution proposed. At the end of his demonstration he attested that an *anceps* realised with a short syllable could have five (!!!) different values. He gives up the subject with the dismissing sentence: «But a simpler system is not easy to arrive at».<sup>33</sup>

When we compare the traditional metric analyses with the A/B rhythmic system we can see that the alternation

between long and short syllable, the so-called link *anceps*, is always positioned in the ending spondee. As we have already said, when there is a full word-end ( $- \simeq |$  or  $\simeq | -$ ) a one-beat *leimma* can be added to the short syllable in order to have the same length as the spondee.<sup>34</sup> In absolute numbers, taking into account all the repetitions, there are 225 occurrences of the form with the alternation in the first part of the spondee ( $\simeq | -$ ) and 592 occurrences with the alternation in the second part ( $- \simeq |$ ).<sup>35</sup>

When a full word-end after the *anceps* does not take place, there are only 8 cases<sup>36</sup> that have an “iambic” form and all of them have word-end after the short syllable ( $\simeq | -$ ). Also in this case it is possible to hypothesise a one-beat *leimma* after the short syllable (*brevis in longo*) in order to equalize the length of the foot to that of the spondee ( $\simeq | \wedge -$ ).<sup>37</sup> It is important to notice that in this position the form without word-end ( $\simeq \rightarrow -$ )<sup>38</sup> does not occur: in this case the foot would be a true iamb and a variation of the rhythm would be necessary.

Finally there are 138 cases in which the short syllable (without full word-end) happens in the second part of the spondee, creating a “trochaic” form ( $- \simeq$ ). Among these 138 cases 31 have word-end after the short syllable ( $- \simeq |$ ). Also in these occurrences it is possible to hypothesise a one-beat *leimma* after the short syllable ( $- \simeq | \wedge$ )<sup>39</sup> and to consider this type rhythmically equivalent to the spondee (*brevis in*

*longo*). The remaining 107 “trochaic” feet that have no word-end after the short syllable (–↪) are analysed here below.

In order to understand this phenomenon, it is necessary to present a statistic of all the ending feet and to analyse the frequency with which this type of “trochaic” foot occurs. In this particular case the figures are given in absolute numbers, i.e. considering all the repetitions of all stanzas, and not using the schemes of the stanza-forms.

In tab. 23 we see the breakdown of all the occurrences and the types of the last foot of the 5111 rhythmic elements (A, B, and red). According to these figures, the 107 cases above mentioned are only 2.1% of all the ending feet.

**Tab. 23 – Different forms of the ending foot (absolute occurrences)<sup>40</sup>**


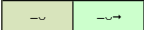

last foot	type	occurrences	%
– –	spondee	3786	74.1%
– $\bar{\lambda}$	cat. +	950	18.6%
┘	cat. →	268	5.2%
–↪	trochee	<b>107</b>	<b>2.1%</b>

**TOTAL RHYTHMIC ELEMENTS**

**5111**

The possibility of having an ending with a short syllable in the last foot is shared by all the rhythmic elements (A, B, and red). Considering the proportion between these endings and the total of all the elements of the same type, red elements have a percentage three times higher (6.8%) than that of the A and B elements (2% and 1.5% respectively), as shown in tab. 24.

**Tab. 24 – Rhythmic elements ending with a short syllable  
(absolute occurrences)**

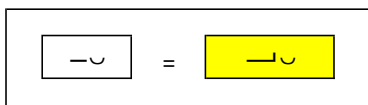
Total endings with short syllable		107		
A		31	2%	out of 1517 total A elements
B		49	1.5%	out of 3195 total B elements
RED		27	6.8%	out of 399 total red elements

Coming back to the question posed by Maas and considering that an eventual trochaic foot instead of the common spondee is quite rare (2.1%), it is difficult to imagine that dancers and musicians could have changed rhythm if the last syllable had a different length. In fact, as regards the performance, changing the rhythmic structure in the case of such an alternation between long and short syllable would be

difficult if not impossible. It is hard to suppose that during the performance a singer, a musician, a dancer or even a choir could substitute the common ending foot of 4 beats, i.e. a spondee or a catalectic element, with a foot of 3 beats, as indeed the trochee is.

It is highly likely that the last foot of each rhythmic element (the ending spondee) should have remained the same length (4 beats) even when the last syllable was a short not a long one. Probably, the form of the last foot would be a triseme-prolonged syllable plus a short one, as shown in tab. 25.

**Tab. 25 – Rhythmic realization of the trochee  
in the ending foot**



If we accept this solution, all the forms and variants of the last foot that we have observed would be coherent with the rhythm of the spondee. Namely, all of them would have the length of 4 beats.

**Tab. 26 – Four-beat feet at the end of the rhythmic elements<sup>41</sup>**




--	spondee
- ā	catalexis with <i>leimma</i>
┌	catalexis with tetraseme long syllable
┌ ˘	logaoedic foot with triseme long syllable

The definition “logaoedic” applied to the last form is based on the records that can be found in the sources (Heph. 24, 28; Aristid. Quint. 46–48 W.-I.).<sup>42</sup> A reliable occurrence of this kind of rhythmic foot is testified in *P.Berlin* 6870, line 18.<sup>43</sup>

The solution proposed must be adopted when the triseme syllable and the short one belong to the same word. Alternatively, in case of word-end between the long and the short syllable, it is possible to hypothesise the insertion of a one-beat rest as well as the version with the triseme-prolonged syllable. We could say that when there is word-end after the long syllable it is not clear if the extra length needed in the logaoedic foot is due to a prolonged syllable (triseme) or to an added one-beat rest.

Thus we can summarise the different forms of logaoedic foot as shown in tab. 27.

**Tab. 27– Rhythmic schemes of logaoedic feet  
with and without word-end<sup>44</sup>**

<b>TOTAL LOGAOEDIC FEET</b>		<b>107</b>	
1) logaoedic foot within the same word		prolonged triseme syllable	59 55.1%
2a) logaoedic foot with word-end		prolonged triseme syllable	48 44.9%
2b) logaoedic foot with word-end		long syllable and one-beat rest	

It is important to point out that in ancient notation both these solutions (the prolonged triseme syllable and the insertion of the one-beat rest) were represented by the same symbol, the *leimma* ( $\wedge$ ).<sup>45</sup>

Out of 107 cases of logaoedic feet there are 59 (55.1%) with no word-end between the two syllables of the foot and 48 (44.9%) with word-end within the logaoedic foot.

The first type shown in tab. 27, that without word-end, offers the author the possibility of having an iambic metric sequence ( $\sim\sim\sim$ ), otherwise impossible in these kinds of metres. As we are going to see, the logaoedic foot, with its prolonged triseme syllable, also gives the opportunity of emphasising some important words (mostly proper names). This is a similar case to that which we have already seen in

the occurrences of catalectic ending feet followed by bridge (tetraseme prolonged syllable).<sup>46</sup>

Also in the case of word-end within the logaoedic foot (tab. 27, types 2a and 2b) some important words, mostly proper names, are positioned in the first or in the second part of the foot. Thus we have two options:

- a) the word which needs emphasis ends with a long syllable on the first part of the foot, being prolonged to a triseme length;
- b) the word which needs emphasis begins in the second part of the foot with a short syllable, after the prolonged triseme or after the rest.

Some notable examples of these words collocated in logaoedic feet are given in paragraph 11 – *Textual appendix b*).



## 8. Resolution and variants of the rhythmic elements

In this paragraph a brief overview of the rhythmic variations and their abbreviations is presented. Here the discussion of these elements cannot be more extensive because it needs further information, but, from the stylistic point of view, these types of elements are the most interesting and deserve great attention. In fact, as A and B are the regular and most used components, the author introduces rhythmic variations not available in these elements in order to insert in the ode a word or a text which has a special metrical structure. Usually these words are proper names, cities, regions and gods. In many cases the same variation occurs more than once in the same ode, even when the text does not require such a change. Thus we can suppose that a rhythmic variation, which is introduced to satisfy the metric structure of a particular name, is transformed by the author into a kind of recurrent theme of the ode, a sort of *Leitmotiv*.

These varied rhythmic elements can be grouped into three classes:

1. Logaoedic elements, which we have already seen in paragraph 7. In the synthetic abbreviations this type is identified with the letter 'L' added to the usual type of rhythmic element, for example AL, BL, A2L, A4L, etc.

2. Resolved elements, which have a long syllable divided into two short syllables. This type is identified with the letter 'S' (AS, BS, etc). In the data here presented these elements are counted as regular elements, because their irregularity is rhythmically irrelevant.
3. Acephalous<sup>47</sup> elements, in which the first long syllable is substituted by a two-beat rest. This type is identified with the letter 'r' preceding the symbol of the element (rA, rA2, rA4). There are no B acephalous elements and there is only one case with a one-beat rest.







Finally there are also 2 isolated elements that seem not to belong to any of the previous groups.<sup>48</sup>

## 8.1 Logaoedic elements

In tab. 28 we can see the rhythmic schemes of logaoedic elements, their abbreviations and occurrences.<sup>49</sup> In the first column on the right half of the table are the occurrences in absolute numbers, in the second column the percentage out of the 107 logaoedic elements and in the third column the percentage out of the 5111 total rhythmic elements. In the fourth column the occurrences in the stanza-forms are shown. For example the element rA4L has 13 occurrences in absolute numbers, all of them occurring in one ode (N10s1).

It is worth noting that element A2L and its acephalous variation rA2L (12 cases altogether) are found in the same ode, the P9, and nowhere else. The logaedic rA2L and rA4L are also presented below, in the group of the acephalous elements (paragraph 8.3).

**Tab. 28 – Rhythmic schemes  
and occurrences of logaedic elements**



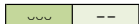





Logaedic elements	absolute occurrences	% 107 logaedic elements	% 5111 total elements	in the stanza-forms
BL 	49	45.8%	0.96%	36
A2L 	10	9.3%	0.2%	1
rA2L 	2	1.9%	0.04%	1
AL 	31	29%	0.62%	16
A4L 	2	1.9%	0.04%	1
rA4L 	13	12.1%	0.25%	1
<b>TOTAL</b>	<b>107</b>	<b>100%</b>	<b>2.1%</b>	

## 8.2 Elements with resolved long syllable<sup>50</sup>

In tab. 29 all the 94 cases (absolute numbers) of the rhythmic elements that have a resolved syllable are shown, with their occurrences in the stanza-forms in the far right column. Apart from BS and BSan, all other types occur in just one ode.

Asp(ondaic) is the only element in which a spondee replaces the first dactyl of the A element. Elements rA1proc.<sup>51</sup> and A2proc. have a proceleusmatic foot and are found in the same ode, the O7, and nowhere else. Aproc. is the only element A that has a resolved long syllable; it occurs in I4s5.<sup>52</sup> As we have already said, most of these rhythmic variations seem to be used as specific characteristics of the ode in which they are found.

**Tab. 29 – Elements with resolved long syllable**

Elements with resolved long syllable	absolute occurrences	in the stanza-forms
rA1proc. 	5	1
A2proc. 	5	1
BS 	65	12
BSC 	5	1
BSproc. 	1	1
BSan. 	7	4
Asp. 	5	1
Aproc. 	1	1
<b>TOTAL</b>	<b>94</b>	<b>22</b>

### 8.3 Acephalous elements

All the acephalous elements are characterised by a rest at their beginning. This means that the missing first long syllable of the rhythmic element is replaced by a two-beat rest. Only the element rA1proc. has a one-beat rest.



















In these elements the rest is hypothesised, because it is not indicated by any other signal except the need to complete a rhythmic element, which otherwise would be left incomplete. But all these rhythmic elements have some specific characteristics which can give to this hypothesis a certain reliability. In fact, all the acephalous elements are preceded by full word-end and all of them are collocated at the beginning of the *colon*. These two characteristics are coherent with the presence of a rest at the beginning of the element.

In tab. 30 the occurrences of acephalous elements in the stanza-forms are shown (third column from the right).<sup>53</sup> The two columns on the far right indicate the position of the element. Acephalous elements always maintain their form in the various repetitions of the strophe and epode.

We have already said that all these elements are positioned at the beginning of a *colon*, but it is also necessary to distinguish whether the element with the rest is collocated at the beginning of the strophe or of the epode

(position s1/e1), or it occurs in one of the other *cola* (internal position).

**Tab. 30 – Acephalous elements**

Acephalous elements	in the stanza-forms	position	
		s1/e1	internal
rA1 	15	13	2
rA1proc. 	1		1
rA2  	2	1	1
rA2C  	1		1
rA2L  	1	1	
rA   	1		1
rAc   	1		1
rA4L    	1	1	
<b>TOTAL</b>	<b>23</b>	<b>16</b>	<b>7</b>

Apart from rA1, which will be discussed later, we detect that the acephalous elements are very rare: each of them appears only once, except rA2, which has two occurrences. In absolute numbers, out of a total 5111 rhythmic elements, the acephalous types, excluding rA1, have 30 occurrences (0.6%).

It is not possible to give a consistent and coherent solution to all the cases of acephalous elements but, considering some relevant evidences, the rest at the beginning of these elements seems to have the task of giving emphasis to the following word.<sup>54</sup> In fact, the rest is a silence that gives expectation to the coming phrase. Such an operation is adopted for important words which have two short syllables at their beginning or which consist of just two short syllables.

An example of this kind of strategy is given in O7. In this ode 4 of the total 7 acephalous elements that have two short syllables preceded by a rest are found: these elements are rA2 (2 cases), rA2C and rAC. It is relevant that the commissioner of this ode is Diagoras of Rhodos and 'Póδος is a pyrrhic word which Pindar places exactly in one of these acephalous elements. Thus the particular rhythm of the word 'Póδος gives the author the opportunity of creating a thematic cell throughout the ode, emphasised by the rest collocated before it.

Completely different is the case of element rA1, an abbreviation that is used in the schemes when an isolated long syllable is found. This isolated syllable occurs in the stanza-forms 15 times: 83 times, taking into account all the repetitions (1.6% of the 5111 total rhythmic elements). From a rhythmic point of view, as it is impossible to contemplate a foot of two beats, this long syllable is here

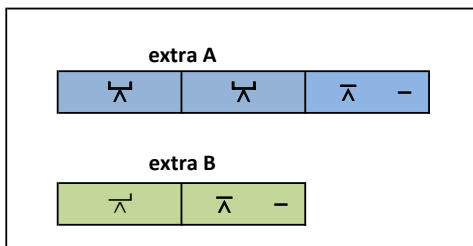
grouped with a two-beat rest. The position of this syllable indicates that probably it should be considered as a procephalic syllable preceded by a complete rhythmic element consisting of rests, in which no text was sung: an element played only by musicians/percussionists. In fact, of the 15 occurrences in the stanza-forms, 13 (86.6%) are found at the beginning of the strophe (position s1) or of the epode (position e1).<sup>55</sup> This position suggests that a rhythmic element (mostly consisting of rests) could be inserted between strophe, antistrophe and epode, in order to delineate the triadic structure of the ode. The isolated long syllable in rA1 would be the last part of this extra rhythmic element, in procephalic position before the following rhythmic element of the strophe or of the epode.

These extra elements could be formed entirely by rests, except for the last syllable, which is the isolated syllable represented in rA1. This syllable is located at the beginning of the strophe or of the epode. The rests indicate a silence only in the part to be sung and this space should be filled with instrumental music.

It is difficult to know which elements were used and if there were more than one, because, obviously, no indications for these rests survived. Nevertheless, as we are going to see in the next paragraph, there are some cases in which this theory can be confirmed by the relationships between the combinations of A and B elements in each ode.



**Tab. 31 - Extra elements A and B<sup>56</sup>**



## **9. Numerical relationships between elements A and B**

Some remarkable numerical occurrences can be noted considering the relationship between the number of A and B elements employed within the stanza-forms. In fact, it seems as if Pindar constructed his odes by first deciding the numbers of A and B elements, and then adding the eventual red variants. We may assume that he had some rhythmic models or schemes made with fixed numbers of A and B elements, to which he added some particular characteristics in the form of rhythmic variants suggested by proper names or other important words.

In tab. 32 some examples of these models are shown:

- O3 has the same number of elements A and B in the strophe as well as in the epode: 6 A and 10 B.
- P12, which is monostrophic, has 10 A and 10 B.

**Tab. 32 – Numerical relationships between A and B elements**

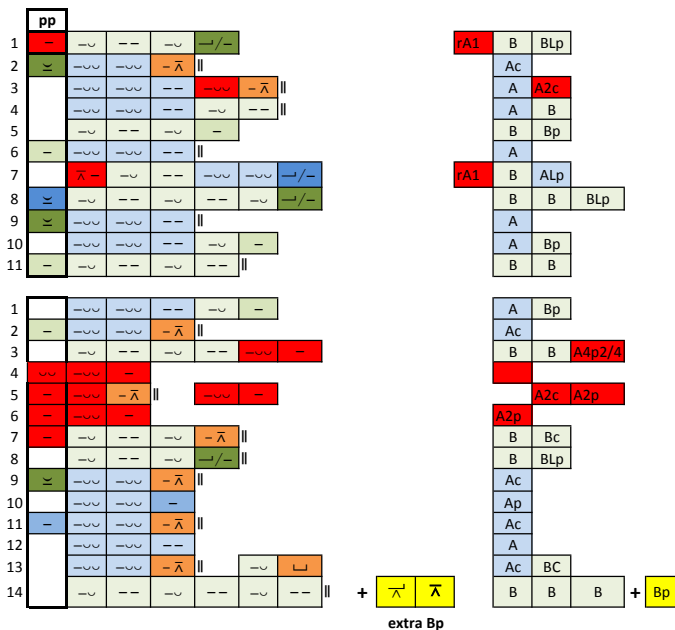
<b>O3</b>	
STROPHE	6A + 10B
EPODE	6A + 10B
<b>P12</b>	
STROPHE	10A + 10B
<b>O6</b>	
STROPHE	7A + 12B
EPODE	7A + 11B (+1 extra B)
<b>N9</b>	
STROPHE	7A + 11B (+1 extra B)
<b>N10</b>	
STROPHE	7A + 12B
EPODE	7A + 11B (+1 extra B)

Moreover, the very intriguing cases are those of O6, N9 and N10. In the strophe of O6, apart from two red elements, there are 7 A and 12 B; in the epode, apart from three red elements, there are 7 A, as in the strophe, and 11 B, one less than in the strophe.

Here is the scheme:

Tab. 33 – Rhythmic scheme of O6

STROPHE 7A + 12B  
EPODE 7A+11B (+1 extra B)



It is highly likely that Pindar planned this ode with the same number of A and B elements in the strophe as well as in the epode, i. e. 7 A and 12 B. Thus, it is possible to think that there was an extra B element added to the end of the epode,

functioning as a short coda, perhaps performed only by musical instruments or percussions, with no sung text. This extra element could have had the double task of dividing epode and strophe and also incorporating the long syllable that is in procephalic position at the beginning of the strophe (rA1 element). In this case we could have 7 A elements and 12 B elements both in the strophe and in the epode. These numbers create very strong relationships between the two rhythmic elements A and B. In fact, the number 7 and 12 have the same components:  $7 = 3 + 4$  and  $12 = 3 \times 4$ .<sup>57</sup> Additionally, in the O6 there are 7 elements A, which have a length of 12 beats, and 12 elements B, which have a length of 7 beats. So the number of beats in the strophe and in the epode is as follows:

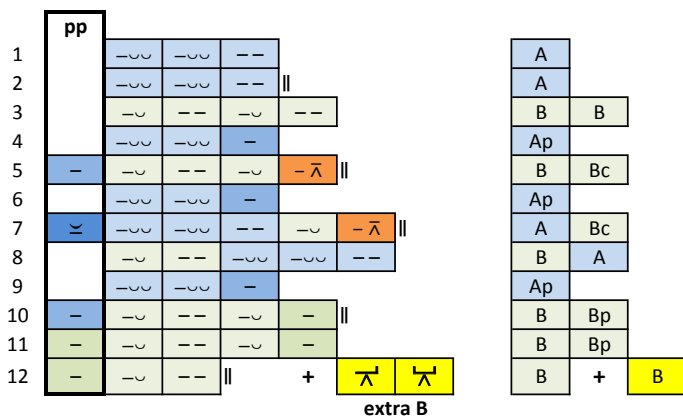
**Tab. 34 - Relationships between number 7 and 12**

$$\begin{aligned}7 &= 3 + 4 \\12 &= 3 \times 4 \\7 \text{ A} &= 7 \times 12 \text{ beats (84)} \\12 \text{ B} &= 12 \times 7 \text{ beats (84)}\end{aligned}$$

We find the same numerical relationship in the monostrophic N9 and in the N10. In this case too there are 7 A and 11 B elements. By adding an extra B element we can have the same result as before: 7 elements A of 12 beats, 12 elements B of 7 beats.

**Tab. 35 – Rhythmic scheme of N9**

STROPHE 7A+11B (+1 extra B)



Likewise in N10 there are 7 A and 12 B in the strophe and 7 A and 11 B in the epode, exactly as in O6.



## 10. Conclusions

This survey aspires to be a first step towards a new method of analysing Pindar's dactylo-epitrite odes: a type of "etymological" analysis, as West indicates, which should be more than a mere metrical description. The rhythmic patterns hidden in these odes show a structure which is surely complex, but which reveals the author's intentions and creativity. The elements A and B are solid bricks with which Pindar built his poetry. Nevertheless it is possible through the rhythmic variants to detect the particular characteristic of each ode. Important words and names are emphasised with prolonged syllables, unusual rhythms or with rests.

Some special rhythms appear only in one ode, but several times. This feature seems to reveal the presence of something that can be considered as a dominant theme, sometimes based on the rhythm with which the winner's name is presented. On more than one occasion in the same location in the stanza-form the name of the commissioner and that of a god are found.

When we consider the performance, it is not easy to think that the audience could have recognised a relationship between two names collocated in the same place in the triadic structure from the rhythm alone. But if we imagine that in the same place not only the same rhythm but also the



same melody was used, and that this melody was heard repeatedly and recognised as a theme, the relationship between two names or two words could be perceived. This emphasis could also have been more effective if a silence were placed before those important words. Probably this was the author's purpose: his strategy for the glorification of the winner. This hypothesis must be verified by analysing each ode individually, but there is evidence to suppose that good results can be reached through further investigations in this field.

## 11. Textual appendix

### a) Text in the catalexes realised with tetraseme syllable

Here are some examples of text or words which can be emphasised by a prolonged tetraseme syllable.

06e13ε'



Άμφι- τρί- τας

07e11α'



Άσί- ας εύρυχό- ρου

07e9δ'



Ί- ά- λυσον

07e9ε'



Καλλιά- νακ- τος

O11e9α<sup>58</sup>



λέ- ον- τες

P1s3δ'



ΐέ- ρων

P1a3δ'



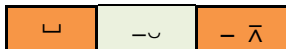
βασι- λεῦ- σιν

P1s6δ'/P1a6ε'



αί- εί

P4s13λ'



Ού- λυμπό- θεν

P4e11λ'



Κυ- ρά- νας

N5e7γ'



παγκρατί- φ

N8a6β'



ὄ- δυσ- σή

N10e10α'



ἄλοχος ἥ- βα

N10e10β'



ἔμολεν ἥ- ρας

N11e7γ'



ἐκ Μελα- νίπ- ποιο μάτ- ρως

I1s6δ'



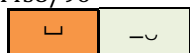
Ἐ- λευ- σίνα καὶ Εὖ- βοιαν

I1e7α'



Καστο- ρείω ἦ Ἰο- λά- οι

I4s8/9δ'



Ἦ- βαν

I5a7β'



Πολυ- δεύ- κeos

I5s7γ'



Αἶ- αντος

I6e10/11α'

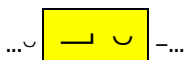


κλέος ἦ- ρωος εὐ- δαίμο- νος

## b) Words in the logaoedic foot

Here is a list of some relevant words which are positioned in the logaoedic foot and which probably can be emphasised through the prolonged triseme syllable. These examples are grouped in the three classes described in paragraph 7, tab. 27.

1) Logaoedic foot without word-end. Out of 107 cases there are 59 of this kind (55.1%).



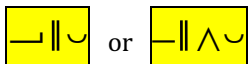
**Tab. 38 - Examples of words in logaoedic feet  
(without word-end)**

O6s7β'	Όλυμπία
O6a1ε'	Συρακοσᾶν
O6s8α'	Συρακοσᾶν
O11e9α'	ἐρίβρομοι <sup>59</sup>
O12e7α'	Όλυμπία
P9e8ε'	Άλεξίδαμος
P9s1ε'	έν Όλυμπίοισι
P9s2α'	Τελεσικράτη

N5s1α'	(άνδρι)αντοποιοός (-υ) - υ - υ
N10s1α'	άγλαο(θρόνων)
N10s1α'	(άγλα)οθρόνων
N10a1β'	Έλλανα*
I2e2β'	Όλυμπίου (Διός)
I2e5α'	Ξενοκράτει
I4e10δ'	Όρσέα*
I5s1α'	Άελίου*

\*Words which do not present a double iambic metric structure.

**2)** Logaoedic foot with word-end after the triseme syllable. In this case we cannot be sure whether the extra length is due to a prolonged syllable (triseme) or to an added one-beat rest. Out of 107 cases there are 48 of this kind (44.9%).<sup>60</sup>



Two options are possible:

2a) The last syllable (long) of the word ends in the first part of the logaoedic foot.

**Tab. 39 – Examples of words in the logaoedic foot  
(ending in the triseme syllable)**

06a7β'	Εἰλατίδα
06s7γ'	βασιλεὺς
06s7δ'	Ἄλκαϊδᾶν
08a4γ'	ἐγὼ (Μελησία)
011a4α'	ἐκ θεοῦ
N8e5β'	Ἄχιλει
N9s6γ'	Ἄμφιαρῆ
N10a1δ'	Ταῦγέτου
I5e7α'	Πυθέα

2b) The first syllable (short) of the word begins in the second part of the logaoedic foot.

**Tab. 40 – Examples of words in the logaoedic foot  
(starting in the short syllable)**

07a4α'	(ιλᾶσκο)μαι Ὀλυμπία
08s2α'	(ἀέθλ)ων Ὀλυμπία
N8s8γ'	ὦ Μέγα
N8e9α'	(πατρ-)ὸς Μέγα
I3e4α'	μὰν Κλεωνύμου
I4a6δ'	οἱ Κρεοντίς
I4e4α'	(χαλκέ)ω τ' Ἄρει



In the 23 stanza-forms there are only 6 cases in which the short syllable in the last foot does not alternate with a long syllable: in these cases the logaoedic foot is maintained in all stanzas of the same ode. These cases occur in five different odes and present a very interesting characteristic: the logaoedic foot, at least in one stanza, contains the name of the commissioner or the name of one of his relatives.

**Tab. 41 – Cases of logaoedic foot occurring in all repetitions**

Ode	Number of repetitions	Proper name	Role
O11s4	2	(ἐκ θεοῦ)	
O11s6	2	Ἀγησίδαμε	Commissioner
P9s2	10	Τελεσικράτη	Commissioner
N8e9	3	Μέγα	Father
N10s1	10	Θεαῖε	Commissioner
I5e7	3	Πυθέα	Brother

### c) Procephalic logaoedic feet<sup>61</sup>

In this paragraph we present an analysis of the 8 cases of procephalic elements in which the ending long syllable alternates with a short one, creating a procephalic logaoedic foot instead of the common spondaic procephalic division. This alternation is quite rare, as is shown in tab. 42: the common procephalic division occurs in a spondaic foot (847 cases, 97%); whereas there are only 26 cases of logaoedic procephalic divisions, 3%.

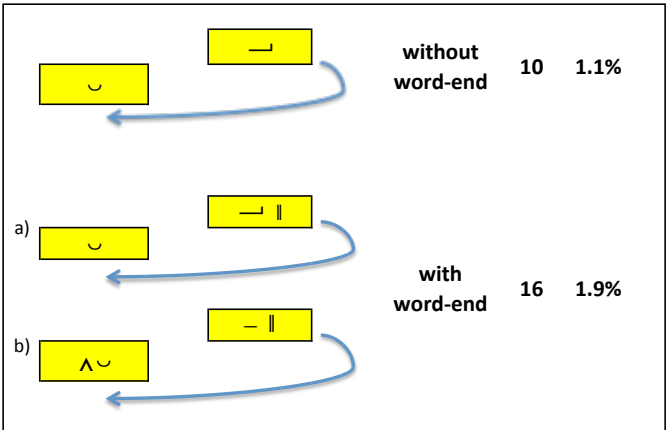
**Tab. 42 – Procephalic division in the last foot  
(absolute occurrences including repetitions)**

spondaic foot	847	97%
logaoedic foot	26	3%
<b>TOTAL</b>	<b>873</b>	

The data are given in absolute numbers because sometimes a spondee and sometimes a logaoedic foot are found in the same position. The 873 total occurrences correspond to the 100 cases of procephalic division in the 23 stanza-forms given in tab. 18 and 21.

Of the 26 cases of logaoedic procephalic foot there are 10 without word-end, which surely have a prolonged triseme syllable; the other 16 have word-end between the two syllables (tab. 43).

**Tab. 43 – Procephalic logaoedic feet  
with and without word-end**



As we have already stated,<sup>62</sup> in the last case it is not possible to determine with a certain reliability if the foot is realised with a triseme long syllable (a) or with the addition of a one-beat rest after the word-end (b).

The procephalic logaoedic feet are found in eight *cola*, within only five odes. In tab. 44 it is possible to see the frequency of this alternation, which occurs rarely (almost only one time for each ode) except in O6s7 (9 times out of 10 repetitions) and in P9s2 (10 times out of 10 repetitions). This last case is the only one in which the procephalic division of the logaoedic foot has no alternation with any spondaic foot.

**Tab. 44 – Occurrences and repetitions  
of the logaoedic procephalic feet**

<b>Colon</b>	<b>Logaoedic</b>	<b>Spondee</b>
O6s1	1	9
O6s7	9	1
O6s8	1	9
O6e8	1	9
O7s4	2	8
P9s2	10	0
N9s6	1	10
I1e9	1	3

The case of the P9 ode deserves particular attention because, once more, it is possible to postulate a particular rhythm which could be considered as a characteristic theme of the ode. In tab. 45 the rhythmic scheme of *cola* s1–s3 is given.

**Tab. 45 – P9 *cola* s1, s2, s3**

	PP	a	b	c	d	e	f	
s1		⌘ ∪ ∪	⌘ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	rA2L
s2		∪ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	A
s3	∪ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	∪ ∪ ∪	A2Lp
								A

In this scheme the procephalic logaedic foot is collocated between position s2f (triseme) and s3pp (short syllable). This is the ending foot of a red A2L element, which has a very rare full word-end in the middle of the first dactyl.<sup>63</sup> After this word-end, in the first strophe we find the name of the commissioner Τελεσικράτη: the logaedic prolonged triseme syllable gives a significant importance to this name. The red elements rA2L (position s1a/b) and A2L (position s2e/f, s3pp) are the only rhythmic variants in this ode: all the other rhythmic elements are A and B. Moreover these two red elements can be found only in this ode. This is an indication of how important they are in the construction of

this rhythmic structure. In particular the element rA2L, which is collocated at the very beginning of the strophe (s1a/b), is very closely related to A2L because it has the same rhythm as the name Τελεσικράτη.<sup>64</sup> Nevertheless in this position, i.e. at the beginning, the name of the commissioner does not occur. Probably a sort of dominant theme was sung at the beginning of the ode, with the purpose of introducing a well recognizable theme to the audience, and then it was proposed again with the name Τελεσικράτη.

It is worth noting that in the same position where the name Τελεσικράτη is found (s2e/f, str. α') also the word Διός is collocated (s2e, str. γ') and the word διδύμων, referring to the twins Castor and Pollux (s2e, ant. δ').

## NOTES

<sup>1</sup> The group of Pindar's dactylo-epitrite odes includes O3, O6, O7, O8, O11, O12, P1, P3, P4, P9, P12, N1, N5, N8, N9, N10, N11, I1, I2, I3, I4, I5, I6. For the term 'dactylo-epitrite' see Barris 2011, 144–148; see also Gentili/Lomiento 2003, 204–219 (Κατ' ἐνόπλιον-epitriti).

<sup>2</sup> Cf. Maas 1966, 40–41.

<sup>3</sup> One beat is the *πρῶτος χρόνος*, the Aristoxenian rhythmic unit.

<sup>4</sup> West on dactylo-epitrite: «Most poems can be treated as wholly constructed out of these units with or without a 'link-syllable' (usually long) before, between, and after them» (West 1982, 70).

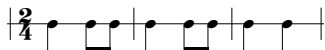
<sup>5</sup> Τῶν δὲ ποδῶν ἐλάχιστοι μὲν εἰσιν οἱ ἐν τῷ τρισήμῳ μεγέθει· τὸ γὰρ δίσημον μέγεθος παντελῶς ἂν ἔχοι πυκνήν τὴν ποδικὴν σημασίαν. Aristox. *Rhythm*. 302 Westphal (16, 20–23 Pearson).

<sup>6</sup> Pearson 1974, 173.

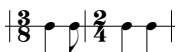
<sup>7</sup> West 1982, 70.

<sup>8</sup> A similar procedure is also used by Pearson 1974, 175.

<sup>9</sup> In modern musical notation:



<sup>10</sup> In modern musical notation:



<sup>11</sup> The term ‘stanza-form’ indicates the metrical scheme common to all strophes and epodes in each ode. Cf. Itsumi 2009, xv. Both I3 and I4 are included in the computation of the stanza-forms.

<sup>12</sup> See *Schol. metr. in Pind.* 3, 8–18 and 4, 1–5 Tessier.

<sup>13</sup> Particular forms of red elements are discussed in paragraph 8 – *Resolution and variants of the rhythmic elements*.

<sup>14</sup> According to Comotti (1988, 19), the λεῖμμα (λ̄), is a sign which indicates a rest or a prolonged syllable: «Per il *leîmma* non si può pensare ad un impiego omogeneo del segno in tutti i testi che possediamo: bisogna invece attribuirgli il valore di pausa o di allungamento della durata della nota con una attenta valutazione caso per caso». On the topic of prolonged syllables this passage by West is clear: «Some of these long syllables, that is to say, were protracted to double the length of others, but in ordinary poetry where long and short syllables alternate we have no proof that tetraseme values ever have to be assumed» (West 1982, 21–22). Both Gildersleeve and Pearson in their analyses of Pindar’s odes use rests and prolonged syllables.

<sup>15</sup> The symbol | is used when a word-end occurs; the symbol || is used when a full word-end occurs.

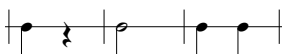
<sup>16</sup> The two cases (long and short syllable) in modern musical notation:



The same solutions are proposed by Lionel Pearson. See Pearson 1974, 186.



17 In modern musical notation:



Also in case of full word-end, the remaining syllable in the catalectic foot could have been prolonged to a length of 4 beats instead of being added to a two-beat rest (the option here suggested), but it is not possible to know which of these two forms the author chose.

18 The computation of A elements does not include the type AL, which ends with a trochee instead of a spondee (31 cases, 2%). In the same way the computation of B elements does not include BL, which has a trochee instead of the common ending spondee (49 cases, 1.5%). These AL and BL elements are discussed in paragraph 7 – *The short form of anceps*.

19 Of the 268 total occurrences of catalexis realised with prolonged tetraseme syllable, there are 204 in which the long syllable has a long vowel (76.1%) and 53 in which the syllable, having a short vowel, is long for its position (19.8%); 11 cases are uncertain (2.8%).

20 The occurrences of full word-end are taken from the edition Snell/Maehler.

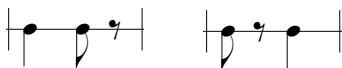
21 The data include the word-ends in the last foot of the strophe and of the epode.

22 Of the 8 irregular cases with full word-end there are 6 in the middle of (extra) long rhythmic elements A4 and A5. Another case (P9s2) is found in the middle of the first dactyl of an A2 element. In the last case (P1s4/5) the word-end is in the middle of a red element which is the only one that cannot be identified with any other element:

A2agg ||

The diagram shows a red rectangular block with a white shape inside, representing a word-end. The white shape consists of a horizontal line with a small vertical tick at its right end, resembling a musical note or a specific symbol. The red block is followed by a double vertical bar (||).

23 In modern musical notation:

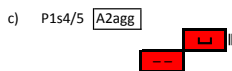
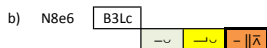
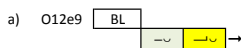


24 For the term ‘procephalic’ see *Appendix Dionysiaca*, 326, 328 C. There are examples of procephalic phenomenon in lines 16 and 17 of *P.Berl.* inv. G 6870 (see Pöhlmann/West 2001, 56–57). Examples of this kind can also be found in Augustinus *De Musica*, 4.13.16; 4.14.19 (two examples); 4.14.20; 4.14.21; 4.15.27; 4.15.28.

25 N8 has a lot of irregularities, cf. Itzumi 2009, 423. It has the highest percentage of red elements, one of only 2 cases of a *colon* ending between two complete feet (N8e4/5; see paragraph 6 – *Colometric division*) and also 2 internal catalexes with full word-end (N8s4, N8e8), out of 8 total occurrences.

26 The abbreviations p1, p2, p3, indicate the number of the foot in which the division occurs.

27 Here are the 3 alternative occurrences:



These cases will also be presented in the paragraph 8 – *Resolution and variants of the rhythmic elements*.

28 The exceptions are 8 out of 292 cases. Cf. tab. 11.

29 Irigoín 1958, 19. On this topic cf. Irigoín 1958, 125 and Tessier 1995, 32.

30 Phillips 2018, 76.

31 Tessier 2012, 129.

32 Maas 1966, 37–38.

33 *Ibidem.*

34 Cf. *supra*, paragraph 4 – *Closing spondee and word-end.*

35 The occurrences of these two types in the 23 stanza-forms are given in tab. 12

36 O7s4 (4 cases, ant.α', str.β', ant.γ', str.δ'), N5s7 (3 cases, str.α', str.γ', ant.γ'), N5e2 (1 case, ep.α').

37 In modern musical notation:



38 In modern musical notation:

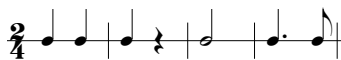


39 In modern musical notation:



40 The occurrences of the spondee also include the different types which have word-end and *leimma*.

41 In modern musical notation:



42 On this issue cf. Garosi 2020. In this article other cases of alternation between spondaic and logaoedic feet are discussed.

43 See West 1992, 13 and Pöhlmann/West 2001, 56–57.

44 In modern musical notation:



The comma in the example 2a indicates a possible breath in coincidence with the word-end.

45 «Per il *leîmma* non si può pensare ad un impiego omogeneo del segno in tutti i testi che possediamo: bisogna invece attribuirgli il valore di pausa o di allungamento della durata della nota con una attenta valutazione caso per caso» (Comotti 1988, 19).

46 Cf. paragraph 3 – *Catalexis*, and paragraph 11 – *Textual appendix a)*.

47 For the term ‘acephalous’ see *Appendix Dionysiaca*, 326, 327 C.

48 The 2 elements are: A2agg. (P1s4/5, between two *cola* with word end in the middle) and B3Lc (N8e6).

A2agg

B3Lc

These 2 elements are included in the 3 exceptions indicated as “other” in tab. 21.

49 **BL:** O6s8, O6e8, O11s4, O11s6, O11e9, O12s7, O12e3, O12e7, O12e9, P9e8, N8e9, I3s9, I3e4, I3e8, I4s1 (two cases), I4s9, I4e4, I4e5, I4e8, I4e10, I5s1, I5s2, I5e7; **A2L:** P9s2/3; **rA2L:** P9s1; **AL:** O6s7, P12s13, N8e4/5, I4s4; **A4L:** P4s7; **rA4L:** N10s1.

50 **rA1proc.:** O7e6; **A2proc.:** O7e10; **BS:** O11e13, P1e6, P1e8, P1e11, P1e15, P4s14, N1e1, I5s2, I5s6, I5e6, I6s10 (2 cases); **BSC:** N10e10; **BSproc.:** I6s5; **BSan.:** N5s8, N5s10, I2e7, I4e11; **Asp.:** N8s1; **Aproc.:** I4s5.

51 rA1proc. is a peculiar rhythmic element on the grounds that it consists of only one foot. It will also be presented in the paragraph 8.3 devoted to acephalous elements.

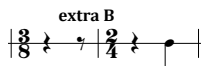
52 Cf. Maas 1966, 41.

53 **rA1**: O6s1, O6s7, O8e1, P9e1, P12s1, N1s1, N5s1, N5e1, N8e1, I1e1, I1e9, I2s1, I3e1, I4e1, I6s1; **rA1proc.**: O7e6; **rA2**: O7s1, O7s10; **rA2C**: O7e11; **rA2L**: P9s1; **rA**: P3e14; **rAc**: O7e5; **rA4L**: N10s1.

54 Cf. Oswald 2007, 98.

55 The 2 cases of rA1 which are not positioned at the beginning of strophe and epode are O6s7 e I1e9. The latter one does not seem to have particular characteristics that can justify its position; on the other hand element rA1 in O6s7 is really interesting because in it we find the name of the commissioner and also that of Herakles.

56 In modern musical notation:



57 It is noteworthy that 7 and 12 were very important numbers in ancient civilisations and even nowadays they are used in measuring time.

58 Together with logaedic ἐρίβρομοι.

(-)υ	υ	υ	υ	υ
έ-	ρίβρο-	μοι λέ-	ον-	τες

59 Together with tetraseme λέοντες. See n. 58.

60 In some occurrences it is not easy to determine whether a word belongs to the group 2a or 2b.

61 This type of foot is mentioned at the end of paragraph 5.

<sup>62</sup> Cf. *supra* paragraph 7.

<sup>63</sup> In all the 23 stanza-forms there are other 6 cases of this kind, but all in the middle of “long” rhythmic elements: 5 cases in elements A4 and 1 case in A5.

<sup>64</sup> The foot in position s1b alternates between a spondaic foot (6 occurrences) and a logaoedic foot (4 occurrences).

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