

THE METRE IN THE CYNEGETICA OF ps. OPPIAN

The metre in ps. Oppian's *Cynegetica* has received very little attention from scholars thus far¹; the few references which are found are extremely critical². Furthermore there is no complete work which analyses the metrical features in the four books of the poem in detail; Schmitt's analysis of the metre in the *Cynegetica* in the introduction of his thesis, apart from dealing only with the first book, is far from exhaustive³.

In the following pages I shall try to analyse the metre from all aspects. The work has been divided into two parts; in the first I deal with the form of the hexameter in the *Cynegetica* while in the second part I try to analyse the metrical properties of the words which constitute the verse in the poem, i.e. I shall try to identify what metrical types of words the poet used to compose his poem. For the convenience of the reader I follow Boudreaux's edition of the *Cynegetica*, Basel 1909.

In the 2144 lines of the four books of the *Cynegetica* there are twenty-seven different types of the hexameter⁴ as shown in the following table.

1. The only work so far to my knowledge is by La Roche, *Zur Prosodie und Metrik der späteren Epiker*, *Wiener Studien* 22 (1900), 35-55.

2. cf. for example E. Norden, *Die Antike Kunstprosa*, 2Bde., Leipzig 1898 (Darmstadt 1958) 834, R. Keydell, *R.E.* 18.1 (1939) s.v. Oppianos 2, 707.

3. W. Schmitt, *Kommentar zum ersten Buch von Pseudo-Oppians Kynegetika*, Münster 1969, 25-33.

4. Homer uses thirty-two types of the hexameter in the two poems, cf. Hephaestion, *Ἑγχειρίδιον περὶ μέτρων*, (ed. M. Consbruch, Lipsiae 1906), 263 ff.; cf. also A. Ludwich, *Beiträge zur Kritik des Nonnos von Panopolis*, Königsberg 1873, 45ff.; Ps. Oppian avoids the following five Homeric forms, 1) sssss, 2) ssdss, 3) dssss, 4) sdsss, 5) ddsss, all of them constituting spondeiazondes hexameters. The poet of the *Cynegetica* seems to use a larger variety of hexameters than the other Hellenistic and late epic poets, cf. La Roche, op. cit., 39ff..



The poem of the *Cynegetica* consists of 8254 dactyls and 4610 spondees of which the 2144 spondees in the sixth foot in the hexameter¹. A total of 21.70% of the poem consists of holodactyl hexameters; the most

| Type of hexameter | book I | book II | book III | book IV | Total |
|----------------------|--------|---------|----------|---------|-------|
| 1. dddddd | 121 | 121 | 111 | 112 | 465 |
| 2. sddddd | 51 | 80 | 74 | 64 | 269 |
| 3. dsdddd | 85 | 103 | 89 | 85 | 362 |
| 4. ddsddd | 36 | 29 | 32 | 22 | 119 |
| 5. ddddsd | 40 | 48 | 43 | 37 | 168 |
| 6. ddddds | 22 | 20 | 36 | 15 | 93 |
| 7. sdddsd | 15 | 16 | 10 | 9 | 50 |
| 8. dsddsd | 14 | 22 | 9 | 8 | 53 |
| 9. ddsdsd | 1 | 2 | 4 | 3 | 10 |
| 10. dddsss | — | — | — | 1 | 1 |
| 11. ssdddd | 19 | 40 | 19 | 15 | 93 |
| 12. sdsddd | 17 | 15 | 10 | 4 | 46 |
| 13. sdddsd | 24 | 38 | 24 | 10 | 109 |
| 14. dssddd | 20 | 19 | 15 | 15 | 67 |
| 15. dsdsdd | 36 | 34 | 22 | 21 | 113 |
| 16. ddssdd | 3 | 4 | 2 | 1 | 10 |
| 17. sssddd | 5 | 3 | 2 | 1 | 11 |
| 18. ssdsdd | 14 | 20 | 9 | 10 | 53 |
| 19. sdssdd | 1 | 6 | 2 | — | 9 |
| 20. dsssd | 5 | — | 1 | 3 | 9 |
| 21. dssdsd | 1 | 4 | 1 | 2 | 8 |
| 22. ssddsd | 4 | 3 | 7 | 2 | 16 |
| 23. sdsdsd | 1 | 1 | 1 | 1 | 4 |
| 24. sddsss | 1 | — | — | — | 1 |
| 25. dsdsss | 1 | — | — | 1 | 2 |
| 26. ssssd | 1 | — | 1 | — | 2 |
| 27. sssdsd | — | — | 1 | — | 1 |

frequent position for a spondee is in the first and the second foot in the hexameter (27% and 32% respectively).

1. The relative frequency of dactyls to spondees in the *Cynegetica* is 2: 1 and it is analogous to other epic poets; cf. for instance F. Beneke, *De Arte Metrica Callimachi*, Diss. Strasbourg 1880, 15 for the frequency of the spondees in Callimachus. I do not count the sixth foot spondee which is obligatory in the hexameter.



Four spondees:

The use of hexameters with four spondees seems to be limited in the Hellenistic and late epic poetry; there are two forms of this type of the hexameter, cf. La Roche, op. cit., 42f., both of which are used by the poet of the *Cynegetica*:

| | | | |
|------|-----|-----|---|
| ssds | III | 31 | δειραὶ κάκεινοις καὶ στήθεα λαχνήεντα, |
| sssd | I | 292 | ὅσσοι Κυρήνην πουλυψήφίδα νέμονται. |
| | III | 498 | ἀλλ' ἔμπης θέλιν ποσὶ κραιπναὶ τελέθουσαι |

Three spondees:

As far as the hexameters which contain three spondees I have counted 113 such lines which combine in nine different metrical forms; the most striking examples are:

| | | | |
|-------|-----|-----|--|
| ssdd | I | 70 | ἡ θῶας κίρκους, ἡ ῥινοκέρωτας ἐχίνοις, |
| | | 75 | τίγριν δ' ἱππῆες, καὶ τριγλίδας ἰχθυβολῆες, |
| | II | 375 | (αἰδῶς ὦ πόσση, πόσσοις πόθος ἐστὶ τοκῆων) |
| | III | 45 | μόνοισι ξανθοῖς φοινισσόμενος στομάτεσσιν. |
| sdsds | IV | 14 | τίς δ' ἂν πάντ' ἐσίδοι; τίς δ' ἂν τόσον ὠπῆσαιτο |
| sddss | I | 482 | ἱμείρων, προπάροιθε πυλάων αἰπεινάων |
| dsdss | I | 35 | μέλπε μόθους θηρῶν τε καὶ ἀνδρῶν ἀγρευτήρων |
| | IV | 112 | αὐτὰρ ἔυρρείταιο παρ' ὄχθαις Εὐφρήταιο |
| ssdds | II | 167 | χαλκίοις γναμπτοῖσιν ἐπείκελοι ἀγκίστροισιν |
| | III | 164 | λιχμῶνται γλώσσησιν ἀμοιβαδῖς, ἀλλήλοισι |
| | IV | 255 | χηλὸν δ' ἀρρήτην ἱερὸς χορὸς αἶρασαι, |
| dssds | II | 179 | πιαλέον νώτοις καὶ λεπταλέον κώλοισιν· |
| | IV | 316 | τοιᾶδ' αἰδοίμεν, τοῖα φρεσὶ πιστεύοιμεν· |
| dsssd | I | 28 | μὴ γένος ἡρώων εἵπης, μὴ ναυτίλον Ἀργῶ, |
| | IV | 96 | ἶχνος ἐπισπέρχων βληχῆς, ἡδ' ἔνθα καὶ ἔνθα |
| sdssd | I | 170 | Τυρσηνοί, Σικελοί, Κρήτες, Μάζικες, Ἀχαιοί, |
| | II | 572 | πάνθηρας χαροπούς ἡδ' αἰλούρους κακοεργούς, |
| ssdsd | I | 503 | τῇ καὶ τῇ θύνει τε καὶ ἐξείης ἐρεείνει |
| | II | 186 | οὐδ' αὐτοῖς δειλοῖς λασιοκνήμοισι λαγωοῖς |
| | IV | 164 | Οὐ τοῖον Γάγγοιο ῥόδος πρόσθ' ἡέλλιοιο |



Stylistical devices are often combined with the metrical form of these lines; for instance in IV 112 the dactyls at the beginning of the line correspond to the deliberate action of the "fair flowing Euphrates"; the hexameter divided by the feminine caesura into two isosyllabic parts with omoioptoton of the epic ending -αο at the end of the first and second part and the assonance of -ε- and -α-. In I 482 the omoioptoton in -ων in the three of the four words in the hexameter, the juxtaposed noun — adjective form occupying the second half of the line¹ and the interchange of trisyllabic and four-syllable words give an elevated tone in the line. We might perhaps also look at the elegance in some of the hexameters, either in the twofold line with a main caesura, e.g. I 70, 75, II 572, IV 316, etc., the anaphora e.g. II 375, IV 14 or the strong alliteration combined with homoioteleuton, e.g. I 35, II 186, etc.

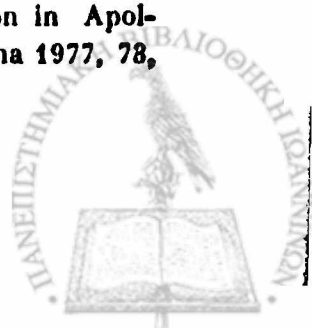
Spondeiazondes hexameters

In the *Cynegetica* there are 240 hexameters with a spondee in the fifth foot, the so called spondeiazondes hexameters, combined in eleven different metrical forms, which comprises 11% of the total number of hexameters in the poem; this is, as far as I know, the highest proportion of spondeiazondes lines in epic poetry²; of the eleven metrical forms the three most frequent are those in which only the fifth foot is a spondee (93 cases), when apart from the fifth there is also a spondee in the second foot (53 cases) and also when the hexameter opens with a spondee (50 cases). The spondeiazondes lines, with only a few exceptions, end in a four syllable word and they always have a Bucolic Diaeresis³; a sequence of spondeiazondes hexameters, with the exception of the first book,

1. On this stylistic device called by A. Wistfard, *Von Kallimachos zu Nonnos*, Lund 1933, 91 a "trivialeren epischen Tradition", cf. W. Schmitt, op. cit. 191.

2. A. Ludwig, *De Hexametris Poetarum Graecorum Spondiacis*, Halle 1866 contains, to my knowledge, the fullest analysis of the spondeiazondes hexameters in Greek epic poetry; Ludwig counts 239 spondees in the *Cynegetica*, one less, in the first book, to my calculation.

3. In the following cases a trisyllabic word closes the hexameter C. I 89, II 3, 179, III 14, 53, 135, 369, IV 177, 346; in most of these cases the line after the feminine caesura is occupied by a fifth syllable adjective referring to a trisyllabic genitive noun. There are also three examples I 50, II 504 and III 405 where a six-syllable word incorporating a fifth foot spondee closes the hexameter in the *Cynegetica*; there are few such hexameters in Callimachus but they are common in Apollonius Rhodius, cf. G. R. McLennan, *Callimachus, Hymn to Zeus*, Roma 1977, 78, Beneke, op. cit., 18ff..



is not very frequent in the Cynegetica; there is usually a sequence of two, rarely three while there is one example of four consecutive spondeiazondes¹.

End of the Hexameter

The end of the hexameter in the Cynegetica, as can be seen in the following table, is usually occupied by a trisyllabic word; disyllables and trisyllables are also frequent in this position in the hexameter; less frequent are pentasyllables while the hexasyllables are usually avoided².

| | Book I | Book II | Book III | Book IV | Total |
|----------------|--------|---------|----------|---------|-------|
| Monosyllables | 9 | 9 | 14 | 6 | 38 |
| Disyllables | 121 | 154 | 142 | 126 | 543 |
| Trisyllables | 223 | 247 | 220 | 193 | 883 |
| Tetrasyllables | 134 | 159 | 112 | 97 | 502 |
| Pentasyllables | 50 | 58 | 36 | 31 | 175 |
| Hexasyllables | 1 | 1 | 1 | - | 3 |
| Total | 538 | 628 | 525 | 453 | 2144 |

The use of the monosyllables is noticeable in the Cynegetica; the rule that the monosyllables at the end of the hexameter is preceded by a Bucolic Diaeresis, cf. Maas³ & 96 is frequently violated here since

1. I have counted nineteen cases of two consecutive spondeiazondes and the following three cases of three consecutive spondeiazondes C. I 76-78, 201-203, III 403-405. The only example of four consecutive spondeiazondes is I 50-53; all four lines have a feminine caesura with the three of the four hexameters closing with infinitive; this passage of the Cynegetica and Eratosthenes frg. 16 (Powell) 14-17 seems to contain the only examples of four consecutive spondeiazondes in the Greek hexameter, cf. Ludwig, op. cit., 22f..

2. The only hexameters ending with a six syllable word in the Cynegetica are I 50 ἀπομηρύσασθαι, II 504 ἀπογυμνωθεῖσαι, III 405 ἐπετεκτάναντο, all incorporating a fifth foot spondee.

3. P. Maas, *Griechische Metrik*, Leipzig 1929 (1923); english translation by H. Lloyd-Jones, *Greek Metre*, Oxford 1962.



almost half of the monosyllables in the *Cynegetica* are found at the end of the line without a preceding Bucolic Diaeresis¹. The most common monosyllable at the end of the line in the *Cynegetica* is the particle *δέ*, found seven times in this position². The monosyllabic word at the end of the hexameter is always preceded by a choriambus, — υ υ —, constituting a coherent word group of the type — υ υ —, i.e. monosyllables are not used to form spondeiazondes hexameters in the *Cynegetica*, cf. R. Keydell, *Nonni Panopolitani Dionysiaca*, Berlin 1959, Prolegomena p. 36 & 6. The majority of the words ending the hexameter in the *Cynegetica* are nouns and verbs; as far as the nouns are concerned usually an accusative and less frequently the dative or the genitive is used³.

The quantity of the last syllable in the hexameter is noticeable in the *Cynegetica*; almost 52% of the hexameters in the poem end with a short syllable. Apart from the short vowels —ε and —ο, most frequent line endings in the *Cynegetica* are those in —α, —ας and —αν; the epic genitive in —αο, with the exception of *βουπελάταο* I 534, is only used in proper names at the end of the hexameter⁴ while the epic datives in —εσσι, —ησι, —οισι are rare. The second declension vocative with the exception of I 3 *Ἀντωνῖνε*, III 430 *αἰολόβουλε* is avoided.

1. cf. C. I 147, II 401, IV 40 *τε* (cf. G. McLennan, op. cit., 68 for the use of this word at the end of the hexameter in Callimachus), I 330, 368 *φρήν* (the word does not appear elsewhere in the *Cynegetica*), I 165 *πτῶξ*, II 522 *ρῆς*, III 513 *κῆρ*, IV 162 *πῦρ*.

2. The particle *δέ* occurs at the end of the line twenty-four times in the *Iliad* and nine in the *Odyssey*; Apollonius Rhodius has two examples IV 45, 819 and Oppian in the *Halieutica* only one I 120; Callimachus has also only one instance, cf. C. Prah, *Quaestiones Metricae de Callimacho*, Diss. Halis Sax. 1878, 20f., while Nonnus, cf. Maas, op. cit., & 138, uses it very frequently; on the contrary, the particle *τε* seems to be more frequent than *δέ* in this position in the hexameter of epic poets.

3. The device that the hexameter closes with a substantive governing a genitive, which is found already in Homer, was fostered by Oppian in the *Halieutica*, cf. G. Giangrande, On the *Halieutica* of Oppian, *Eranos* LXVIII (1970) 81f. and it is used also by the poet of the *Cynegetica*. I have counted more than fifty such cases in the poem; here are a few examples taken at random: I 121 *ὕπλα νηῶν* 226 *δεσμά σιωπῆς*, II 143 *ῥόν Αἰγύπτιοι*, 539 *σημάντορας ἔργων* III 1 *ἔθνεα θηρῶν* IV 404 *λόχος ἀνδρῶν*, etc.

4. The genitive in —αο, apart from proper names, is generally avoided in epic poetry at the end of the hexameter; in Homer and Hesiod we find only the formula *Διὸς νεφεληγερέταο*, in Apollonius Rhodius II 961, 993 *ἀργέσταο*, I 652, IV 286 *βορέταο*, in Oppian's *Halieutica* III 68 *βορέταο*; for Callimachus, cf. Prah, op. cit., 20 while in the *Dionysiaca* of Nonnus there are no such cases.



Caesurae

The poet of the *Cynegetica* shows, like all epic poets, an obvious preference for the feminine than the masculine caesura; in the four books of the *Cynegetica* the ratio of the feminine to the masculine caesura is I 308: 229, II 402: 224, III 307: 217, IV 286: 116 while there are five hexameters without a main caesura¹. The reason for this preference is the tendency of symmetry since in the hexameters with feminine caesura there is an almost perfect symmetry in the line. In this device ps. Oppian seems to resemble Apollonius' *Argonautica* more than any other major epic poet².

Every hexameter, in addition to its main caesura, usually has a secondary caesura after either the third or the seventh element or at the end of the fourth foot, i.e. in the Bucolic Diaeresis, a rule that is often violated in the *Cynegetica*.

The third element caesura is common in the *Cynegetica* and it is combined more often with the masculine than the feminine caesura; the space between the two caesurae is usually filled with one word, a tendency that we find in the hexameters of Callimachus³, whom the poet of the *Cynegetica* follows here.

1. C. I 112, II 411, 612, III 209, IV 391 have a seventh element caesura followed, with the exception of IV 391, by a caesura in the third element. Schmitt, op. cit., 26 wrongly also regards C. I 11 δῶκεν ἔχειν πᾶσαν τραφερήν, πᾶσαν δὲ καὶ ὑγρὴν, and 504 πάντα λίθον καὶ πάντα λόφον καὶ πᾶσαν ἀταρπὸν, as hexameters without a main caesura, since both of them have a masculine and a feminine caesura respectively. Such lines are unusual in Hellenistic and late epic poetry but not unknown e.g. Apollonius Rhodius has two such lines, II 176, 387, Nicander one, Ther. 894, Theocritus three, VIII 61, XIII 41, XX 72 (A. S. F. Gow, *Theocritus*, Cambridge 1950, vol. II p. 239 note), while both Callimachus and Nonnus always have a main caesura in their hexameters. The violation of this rule is very frequent in early epic poetry; Homer has 219 hexameters in the *Iliad* and 110 in the *Odyssey* without a main caesura while in Hesiod there are 21 such lines in the *Theogony*, 18 in the *Work and Days* and 7 in the *Shield*. The first scholar to examine these violations of the main caesura in the hexameter thoroughly was K. Lehrs, *Einige Bemerkungen zur Caesur des Hexameters*, *Jahrbuch für klassische Philologie*, VI (1860) 513-31.

2. The ratio of feminine to masculine caesura in Apollonius Rhodius, in Callimachus' Hymns (except hymn V) and in the *Dionysiaca* of Nonnus is: 64:36, 71:29, 83:17 respectively.

3. cf. H. Fränkel, *Der kallimachische und der homerische Hexameter*, *Nachr. Ges. Wiss. Göttingen* 1926, 129.



The only example of a postpositive after a main caesura in the *Cynegetica* is found in IV 74 ἐς δὲ βορῆν, σαλαγεῦντος / ἐπι δροσεροῖο νότοιο¹.

Elision at the caesura occurs in the *Cynegetica* only in the masculine while it is avoided in the feminine caesura².

The rule that there is no stop after the ninth element or at any place nearer the end of the hexameter after this, cf. Maas, op. cit., & 88, is followed by the poet of the *Cynegetica*³.

Masculine caesura

The first half of the line is occupied by a single word in II 348 ἀμφαγαπαζόμενοι, IV 334 προπροκαλυψάμενοι, the only seven syllable words in the *Cynegetica*. A prospective monosyllable is very rarely preceded by a masculine caesura (I 244 ἦν, II 150, III 80 νῦν, IV 217 αὐτ') and there are also a few cases of a coherent word group with a monosyllable preceding the masculine caesura (I 291 μετὰ τούς, 440 ἥ που, II 617 γάρ ποτε δῆ, IV 233 νῦν μέν). As a rule the syllable which precedes the masculine caesura contains a long vowel or diphthong; lengthening by position in this case is avoided in epic poetry although it is frequently practiced by the poet of the *Cynegetica*⁴.

In epic poetry, hexameters with a masculine caesura have a secondary caesura after the seventh element, cf. Maas, op. cit., & 93⁵; in this case

1. A postpositive after a secondary caesura occurs in C. I 54 πόνω δ' / ἄμα, 197 Ταύρου / πρόπαρ, III 282 ῥινῶν / ἄπο. The phenomenon of a preposition after the caesura linked with what precedes the caesura seems to be almost entirely restricted to epic poetry, cf. W. Bühler, *Die Europa des Moschos*, Wiesbaden 1960, 221-28.

2. cf. my paper On the Elision in Oppian, *Δωδώνη "Φιλολογία"* 24 (1995) 121.

3. The exceptions of a weak stop at the ninth element can be easily explained; it occurs in I 170-2, 371-3 where the hexameters consist catalogues of proper names; in C. III 448, IV 408 the words after the weak stop stand in apposition, in I 368 we have an addressing; C. III 462 μικτὰ φύσιν θηρῶν, διχόθεν κεκερασμένα, φύλα, is wrongly punctuated by Boudreaux.

4. One in every five hexameters with a masculine caesura in the *Cynegetica* has a syllable preceding the caesura which is lengthened by position. Almost in all cases the short syllable preceding the caesura is lengthened by a final consonant and the initial consonant(s) of the following word, as in III 47 ἐμολεν/διαπόμπιμος Ζηνός, γλυκερόν, etc., but cf. I 356 πορφύρεα / ται on which see A. Rzach, *Neue Beiträge zur Technik des nachhomerischen Hexameters* (Sitzungsberichte..., Wien, C. 1882) 338, and I 273 ἄρος ἔοι, IV 269 ποιμένιον ἰδρύσατο.

5. Moreover this rule is widely violated in the *Cynegetica* where I have counted eighty-three hexameters with only a single masculine caesura.



the sixth element is disyllabic. Callimachus and Nonnus adhere strictly to this rule while Homer and Apollonius Rhodius sometimes allow a monosyllabic sixth element. In the *Cynegetica* the violation of this rule is very frequent; the ratio of the disyllabic to the monosyllabic sixth element in hexameters with a masculine and seventh element caesura is 2 : 1; it seems to me that the poet of the *Cynegetica* either disregarded or he was not aware of this rule. In a few cases a polysyllabic proper name prohibits the seventh element caesura.

One hundred and twelve hexameters with a masculine caesura followed by a seventh element secondary caesura also have and a Bucolic Diaeresis; the sixth element in seventy - nine of these lines is dissyllabic, whereas it is monosyllabic in the remaining thirty-three.

Feminine Caesura

A total of 61% of the hexameters in the *Cynegetica* have a feminine caesura; the poet elaborates the hexameter using monosyllables¹, the genitive in -οιο and the plural dative and the third plural ending in -σι² just before the feminine caesura. The feminine caesura is often combined with a seventh element secondary caesura³; furthermore I have counted seventy-six hexameters where apart from the feminine caesura and the seventh element caesura, there is also a Bucolic Diaeresis, a device that makes the second part of the hexameter exceptionally asymmetrical.

Bucolic Diaeresis

The rule that the masculine caesura also has a secondary caesura after the eighth element, the so called Bucolic Diaeresis, is frequently

1. Such monosyllables are the particles τε (104 times), δέ (46), μέν (23), γάρ (6), περ (2), ρα (1), κεν (1), the pronouns με (1), σε (1), μιν (1), σφε (1), τις (3), τιν' (1), τι (1). On the function of the monosyllable before the feminine caesura in the hexameter cf. G. Hermann, *Orphica*, Leipzig 1805, 693.

2. It is perhaps worth noting that the 34% of all the endings in -οιο and the 66% of all the endings in -σι in the *Cynegetica* occur before the feminine caesura in the hexameter.

3. Out of the 1303 hexameters with a feminine caesura in the *Cynegetica* 297 lines are also followed with a seventh element caesura; moreover there are 226 lines with only a main feminine caesura.



violated by the poet of the *Cynegetica* since the Bucolic Diaeresis follows without restriction after a masculine or a feminine caesura¹.

The spondee is avoided before the Bucolic Diaeresis, i.e. the word end never follows a monosyllabic eighth element; the breach of the Bucolic Diaeresis is not rare in Homer and Apollonius while it is avoided by Nonnus and Callimachus. As far as the poet of the *Cynegetica* is concerned, the breach is frequent usually when a feminine caesura occurs in the hexameter².

Hermann's Law

In 1805 G. Hermann in his edition of the *Orphica*, pp. 692-96, observed that in all Greek epic poets a word should not end after the first short of the fourth foot, a law that bears his name since; moreover he noted p. 695 that the poet who wrote the *Cynegetica* frequently uses such a caesura after the first short of the fourth foot and he had counted twenty seven cases. I have found forty-three such cases of a word ending after the fourth trochee³; in twenty-six of these cases a single word is involved while in the remaining seventeen a coherent word group is found⁴, a proportion (1 example in every 46 lines) which, as far as I know, is the highest among the epic poets⁵.

1. Out of the 878 hexameters in the *Cynegetica* which have a Bucolic Diaeresis, 338 follow after a masculine caesura, 538 lines follow after a feminine caesura, while in two cases I 112, II 411 the line has a seventh element caesura and a Bucolic Diaeresis without a main caesura.

2. Of the forty-three exceptions in the *Cynegetica* we have only six cases where a breach of the Bucolic Diaeresis is combined with a masculine caesura: I 17, 26, 244, II 561, IV 145, 179. Two of the hexameters with a breach of B. D. contain an elided disyllable before the Diaeresis, I 17 τοῦτ' / Ἄρτεμις, IV 164 πρόσθ' / ἡλλοιο.

3. A breach of Hermann's Bridge occurs in the *Cynegetica* when a word or a coherent word group of the type υ - υ follows after the feminine caesura or of the types - - υ, υ υ - υ follows after the masculine caesura.

4. Of the seventeen cases of a word group, eight involve the postpositive τε I 65, 151, II 307, 326, 600 IV 7, 365, 422, five δε I 192, 314, 459, III 495, IV 29 and one each I 82 μέν, III 85 γάρ, II 516 κεν, 269 μιν.

5. Hermann's Bridge is invariably respected; in Homer the breach of Hermann's Bridge is once in every 390 lines, cf. Maas, op. cit., & 87, in Nonnus is severely restricted, cf. Keydell, op. cit., vol. I 35 & 2, in Callimachus' Hymns and in Hecale is limited, cf. Prah, op. cit., 13ff.. In the *Phaenomena* of Aratus in addition to the violations cited by Maas & 91 we might add lines 585, 903 and line 125 where a coherent word group is involved.



Prosody

The following rules and preferences are characteristic in the *Cynegetica*:

1. A short vowel either at the end or within the word:

a. Remains usually short before a consonantal group consisting of a mute + ρ, πλ or κλ (correptio Attica)¹; in all other consonantal groups of mute + liquid a short vowel is lengthened; the ratio of the shortening to lengthening is 1: 3; almost all the examples of lengthening in the *Cynegetica* are due to metrical necessity² and they are well attested with this prosody elsewhere in poetry.

b. is lengthened before α mute + nasal e.g. τέχνη, πότνια, τεκμήραντο etc., with only a few exceptions³.

c. remains rarely short before other consonantal groups, e.g. I 208 ἄσκαρδαμύκτοισιν, II 82 δρυμοῖσι σθενοβλαβέος, 84 Αἰγύπτιοι, 586 οὔτι-
δανοῖο σκιούρου III 478 γαλακτόχροες⁴.

d. the short vowel by nature is lengthened by position before a single liquid (λ, ρ) or nasal (μ, ν) or σ (irrespective of the position of the consonant in the word), e.g. I 238 μῦσῶν, III 471 ἴσα, 299 μεσημβρινήν, III 248 τε Μήδειαν, 281 ὑλακῶντες⁵, IV 311 πῦρός, 358 πολυπλάνεα, 390 διὰ ῥινοῖο, IV 144 ἐπιμύουσιν, etc.; it is perhaps worth noting the two cases I 273 ὄρος/ ὄθι and IV 269 ποιμένιον/ ἰδρύσατο, of the short vowel lengthened before a single liquid at the masculine caesura, cf. A. Rzach, op. cit., 389, 408, respectively.

e. a short vowel before a single following consonant other than liquid, nasal or σ is lengthened by position of metrical necessity I 95 δὲ πεζός, II 142 ὕδατοπλήγεσιν, III 368 σφριγᾶ.

1. There are also two examples of the consonantal group -χλ- C. IV 356 ὄχλος and -βλ- I 145 διὰς περὶ βληχάδες, the preposition περὶ is used in anastrophe here.

2. e.g. I 148, etc. ὄπλα, II 321, etc. πικρῆς, II 239, etc. λάβρησιν, II 449 διπλά, II 416 λυγρά, etc. We might perhaps notice here the case of the particle δὲ before an initial mute + liquid; the particle remains short with the only exceptions C. I 356, II 88, 229, III 95 where it becomes long and we might add IV 286 where the particle is lengthened before mute + nasal, δὲ θνητοῖς.

3. It remains short only in I 102 ἴχνη, 167 δεδμημένα, II 508 τέχνας, III 169 εἰσόκε κυζηθμοῖσι 174 λιχμαίνει IV 392 κύκνων; in all the other examples in the *Cynegetica* are lengthened.

4. But cf. I 443 γαλακτοφόρος, II 143 Αἰγύπτιοι.

5. Here it is worth noticing the different quantity in the same word in one hexameter III 281 ἀ-τίον οὐχ ὕλαουσι πάρος γε μὲν ὕλακῶντες.



f. The syllabic augment before a consonantal group is left short only in III 175 ἐκλεψεν and in the compounds III 168 ἀνεπλάσσατο, IV 423 ἐγκατέκλεισε¹.

The position of the short vowel remaining short before a consonantal group in the hexameter is intentional; thus the short vowel before the -κλ- usually occurs, with only a few exceptions², in the feminine caesura, before -πρ- in the feminine caesura and ten times in various other positions; the consonantal group κρ- occurs ten times in position 91/2 and also five times in the feminine caesura; δρ- eight times in the fifth foot and four times in the feminine caesura; the only case of a short vowel before a consonantal group located in four places in the hexameter is -βρ- (elements 1 1/2, 3 1/2, 5 1/2, 9 1/2).

With a few exceptions, e.g. the quantity of σφριγᾶ (for which A. Lobeck, Πηματικόν, Regimontii 1846, 175 proposed σφριγάα) which is not attested elsewhere, all the other cases are widespread in poetry.

2. A long vowel:

a. The final long vowel shortened before an initial long vowel (epic correction) is usually avoided in the Cynegetica³; it is concentrated in the first foot and in the second short of the fourth foot in the hexameter; the other positions are the feminine caesura, II 498 κερδέσσαι ἄνωφές (a reading proposed by Turnebus against the mss κεράεσσιν), the first short of the fifth foot I 480 σημῆνασθαι ἄντην, and the second short in the same foot I 429 πολυχειμέρου ὥρης, II 512 τεύχεται ἔργα, III 272 ἐπιέσπεται οὐρή. The vowels suffering epic correction are η and ω found, with one only exception, in the first short of the first foot and the diphthongs -αι⁴, -οι, -ει and -ου.

1. Apart of ἐκλεψεν which is frequently found with a short augment, the other two verbs are very rarely found in poetry, A.P. II 387 ἀνεπλάσσατο and Alexis fr. 40.3 ἐγκατέκλεισε.

2. The exceptions are I 138 (element 10), 197 (3 1/2), II 623 (9 1/2), IV 272 (8), 423 (4).

3. I do not count the epic correction of καί which is, as in the rest of Greek poetry, widely used in the verse; in the Cynegetica I have found 156 examples of καί used before a word beginning with a vowel and in all these cases καί is shortened, i.e. 1: 3 of the total use of this particle suffers correction in the poem. An exciting example of epic correction of καί is found in C. III 110 where the particle suffers correction thrice in one line: ἀλλὰ καὶ ἐρπηστῆρσι καὶ ἰχθύσιν ἦδὲ καὶ αὐτοῖς.

4. The only example of attic correction in the fourth book of the Cynegetica has the -αι ending shortened before a following vowel in the first foot, 8 μάρναται, οἷσι.



b. Attic correption within the word is limited in the *Cynegetica*, e.g. I 216 δῆϊων, II 311 νάϊεσκον.

3. Lengthening of a short vowel of metrical necessity usually in arsis and less frequently in thesis, is produced in the *Cynegetica*:

I. By the double instead the single -σ- in the aorist of the verbs, e.g. ἐδάμασαν, ὠπλίσσατο, ἐπελάσσατο, ἐφράσσατο, ὄλεσαν, ἐτελέσσατο, ἐπέτασσαν, ἐκάλεσσαν, etc.; in the dative plural of the third declension nouns, e.g. κύνεσσι, θήρεσσι, βένθεσσι, βροχίδεσσι, νάπεσσι, πάντεσσι, etc.; in the pronouns τόσσον, ὅσσον, πόσση and in the adverb ὅπισσω.

II. By the double instead the single -τ- in the conjunction ὅττι.

III. By the double instead the single -π- in the pronoun ὅπποῖος and in the conjunction ὅπποτε.

IV. By the double instead the single -λ- in the verbs ἔλλαχε and ἐλλίσσοντο.

V. By the omission of the syllabic augment when the metrical form of the verb is a compulsory factor; in most cases the poet of the *Cynegetica* follows the Homeric epic¹; for instance the verb βιάζομαι C. III 157 in the third singular of the aorist with the augment gives five juxtaposed short syllables making the verb impossible in the hexameter, whereas without augment and with double -σσ-, e.g. βιάσσατο, it takes the form υ υ - υ which fits in the line; this is also the case with the verbs πειρᾶτο, καλύψατο, χάλασσε, ταλάσσατο, πέλασαν, etc.

VI. By the lengthening of the short -ε- to -ει- in the adjective ὑπέροχος/ὑπείροχος and in the verbs ἐρύω/εἰρύω, θέω / θείω and πνέω / πνείω to satisfy metrical lengthening although for the last verbal form apart from metrical there are also linguistic reasons to explain the change from -ε- to -εῖ-². Metrical lengthening is produced by the use of -ου- instead of -ο- in the nouns νοῦσος, οὔνομα, οὔρεσιν, in the adjectives μούνη, πούλῳς and its compounds πούλύγονον, -ποδες, -χροα, -ψηφίδα.

1. For the omission of the augment in the hexameter of Homer, cf. J. Van Leeuwen, *Enchiridium Dictionis Epicae*, Leiden 1918, 257-60.

2. cf. W. Schulze, *Quaestiones Epicae*, Hildesheim 1967 (Cryphiae 1892), 276, 279ff.; we have also the inverse device in which the diphthong -ει- is substituted for metrical reasons to produce a dibrachy υ υ, by the uncontracted -εε- either in the adjectives with stem in -εσ, e.g. I 118 εὐκραέες, 189 περιγέες, III 100 ἀταρβέες, IV 432 δυσάντεες, etc., in the noun I 14, 276 ῥέεθρα, in the verbs IV 261 ἐπὶγῆε, 263 ἔδεεν, etc. and the adjective κλεωνῶ II 623 which, although common in lyric poetry in this form, does not occur elsewhere in the hexameter. All the remaining, with the exception of the last case, are common epicisms frequently utilized by the poet of the *Cynegetica*.



VII. By the lengthening of a short vowel before a following vowel inside the word e.g. II 494, 513 $\kappa\epsilon\rho\acute{\alpha}\alpha\tau\alpha$ III 275 $\kappa\upsilon\alpha\nu\acute{\epsilon}\eta\varsigma$, II 553, III 240 $\acute{\alpha}\sigma\omicron\rho$, etc¹.

All the above listed examples are well known features in poetry utilized by ps. Oppian in the *Cynegetica*.

4. The initial $\acute{\alpha}$ - is usually short in forms such as $\acute{\alpha}\epsilon\acute{\iota}\delta\omega$, $\acute{\alpha}\epsilon\acute{\iota}\rho\omega$, $\acute{\alpha}\theta\rho\acute{\epsilon}\omega$, $\acute{\alpha}\tau\sigma\sigma\omega$, $\acute{\alpha}\kappa\acute{\alpha}\mu\alpha\tau\omicron\varsigma$, $\acute{\alpha}\nu\eta\rho$; all the exceptions in the *Cynegetica* have Homeric predecessors. The form $\acute{\alpha}\tau\sigma\sigma\omega$ with a long $\acute{\alpha}$ - constitutes an archaism already in Homer, as Wyatt has already observed², and is always used with this quantity in the *Cynegetica*. The short $\acute{\alpha}$ - in the verbs $\acute{\alpha}\theta\rho\acute{\epsilon}\omega$, $\acute{\alpha}\epsilon\acute{\iota}\delta\omega$ and its noun $\acute{\alpha}\omicron\iota\delta\omicron\varsigma$ is clearly long when it is used in arsis whereas it remains short when it is used in thesis³. The short $\acute{\alpha}$ - in the verb $\acute{\alpha}\epsilon\acute{\iota}\rho\omega$ is always lengthened when the verb is used in the arsis of the *Cynegetica*. The nominative $\acute{\alpha}\nu\eta\rho$ is used as a spondee in the sixth foot of the hexameter, as in Homer, cf. Wyatt, op. cit., 67f., with the only exception of IV 420 where $\acute{\alpha}$ - is short in the thesis of the third foot; in the noun $\acute{\alpha}\nu\eta\rho$ we might also notice the double quantity in the vocative C. III 220 $\acute{\alpha}\nu\epsilon\rho$, $\acute{\alpha}\nu\epsilon\rho$, $\tau\acute{\iota}$ $\nu\upsilon$ $\sigma\epsilon\acute{\iota}\omicron$ $\pi\rho\omicron\sigma\acute{\omega}\pi\alpha\tau\alpha$ $\tau\rho\eta\chi\acute{\upsilon}\nu\omicron\nu\tau\alpha\iota$, the first vocative used in crasis⁴; these two are the only examples of a short initial $\acute{\alpha}$ - in this word in the *Cynegetica*.

The ending $-\acute{\iota}\eta$ is widespread in Greek literature with the penultimate $-\acute{\iota}$ - being short from Homer down to Nonnus, cf. Wyatt, op. cit., 160 ff.; as far as the *Cynegetica* is concerned the only exception to this quantity occurs in the words I 322, III 275 $\tau\alpha\iota\nu\acute{\iota}\eta\sigma\iota\nu$, III 187

1. The levelling of prosodic quantity had already occurred by the time the poet wrote the *Cynegetica*, cf. G. Giangrande, *L' isochronia vocalica come fenomeno prosodico alessandrino, Tradizione e Innovazione nella Cultura Greca Da Omero All' Età Ellenistica*, Roma 1993, 991ff. with further bibliography.

2. cf. W. F. Wyatt, *Metrical Lengthening in Homer*, Roma 1969, 180.

3. The form $\acute{\alpha}\epsilon\acute{\iota}\delta\omega$ was already used as the first word in the hexameter by Homer and the initial $\acute{\alpha}$ - is lengthened under the influence of the first arsis, cf. Wyatt, op. cit., 182. The initial $\acute{\alpha}$ - in the verb $\acute{\alpha}\epsilon\acute{\iota}\delta\omega$ is used in the arsis of the *Cynegetica* as long I 1, 42, II 363, 490, 548, III 340, IV 21, 374; elsewhere it is always used in the thesis as short; similarly the verb $\acute{\alpha}\theta\rho\acute{\epsilon}\omega$ is used with a short $\acute{\alpha}$ - in the thesis C. III 222, IV 156; elsewhere it is used in the arsis with a long $\acute{\alpha}$ -. It is not unusual for Hellenistic and late epic poets to lengthen a syllable in thesis which had been lengthened earlier only in arsis, a device which is frequently practiced by the poet of the *Cynegetica*.

4. The phrase $\acute{\alpha}\nu\epsilon\rho$, $\acute{\alpha}\nu\epsilon\rho$, is unique in Greek literature; the phenomenon of crasis is limited in the *Cynegetica*.



ταινίη, 511 ἀγρυπνίη. The verb ἰκάνω and its compounds has the -ι- short and it is used as the last word in the hexameter while the imperfect ἰκάνων in C. IV 257 lengthens the augment but keeps it short in IV 101.

Infinitives in -έμεν are used for metrical reasons in the Cynegetica; in two such cases C. IV 45 διωκέμεν, 139 ἀμυνέμεν they are used to form the Bucolic Diaeresis in the hexameter.

The epic device of dissolving a diphthong in two short vowels is frequently employed by the poet of the Cynegetica, e.g. III 218 πάλιν, IV 295 Πενθηϊάδες, II 211 ἐυσχιδέων, I 324 ἐυτροχόλοισι (but II 131 εὐτροχάλου), III 258, IV 150 ἐυστρέπτοισι, I 313 ἐυπειθέϊ, 437 νεοθηλέϊ, etc.

The use of synizeses is limited in the Cynegetica; I have found only one example IV 409 ἀήτεω; in all other cases the vowels -έω are counted as a dibrachy υ υ.

A final long vowel by position in the elements 8 and 4 is, with only two exceptions¹, infrequent in the Cynegetica; moreover a final vowel is frequently lengthened in element 2 only when the word ends with a consonant².

Lengthening by position in the arsis of the first foot does not appear in the Cynegetica.

Proper names

Personal and place names are frequently used in the Cynegetica without prosodical violations; any difficulties to fit these names into the hexameter are eliminated by the poet with a number of expedients.

There are catalogues of proper names C. I 170-2, 371-3, III 246-8, and also personal names which are frequently juxtaposed with adjectives denoting proper or place names, occupying the whole of the hexameter or its second half, e.g. C. I 109 Λητωϊάς Ἰοχέαιρα, 363 Ἀμυκόφονον Πολυδεύκην, III 246 Αἰγείδην Θησῆα καὶ Αἰολίδην Ἀθάμαντα, etc.

The poet has invented synonyms of existing proper names, which can easily fit in the hexameter; for instance he invented the forms III

1. C. I 244 περιᾶτο σχέτλιος ἀνὴρ, 538 καὶ αὐτὸν θηροφονῆα, in position 8; we might also add C. IV 237 νηπίαχον γὰρ Βάκχον in element 4 where γὰρ is lengthened by position.

2. Out of the 276 words ending in position 2, forty-one have a long vowel by position while the remaining two hundred and forty-four are long by nature.



283 Διδυμήϊον and IV 295 Πενθηϊάδες on the analogy of Διδυμαῖον and Πενθήϊος with the ending -ήϊον and -ηϊάς respectively¹.

At C. I 468ff. the poet refers to the British dogs called Agassaeus; the name does not occur elsewhere² but it is very unlikely that it was invented by the poet of the *Cynegetica*; the name Ἀγασσεύς derives from the future of ἄγαμαι > ἄγασ-, and with double -σσ- is used to fit the word into the hexameter.

In the C. IV 47 the poet refers to the horses which pasture in the land of the Moors, i.e. in Mauritania; the place name Μαυριτανία does not fit in the verse, thus the poet replaces it with the periphrasis Μαυρίδα γαῖαν which then follows the metre perfectly in the hexameter³.

At the end of the second book the poet refers to Zetes and Calais who voyaged in the ship Argo assisting Jason in the Argonautic expedition, line 623:

παῖδε Βορειόνεω Ζήτης Κάλαϊς τε κλεονώ.

Here, the poet changes the name of the father of the two heroes from Βορέας to Βορειόνεος; the word is not attested elsewhere and can be explained as patterned on Βορέας with epic lengthening of -ε- to -ει-; moreover, I think that metrical necessity is not the only reason for this formation and it is probably an artificial creation by the poet of the *Cynegetica*; first of all conglomerates with -εο- (apart of those in -αλέος and -ινος) are rare in Greek poetry; the poet created the adjective βορινός, C. II 237, III 436 also not attested elsewhere in Greek literature; on the other hand confusion of -εο- with -ειο- which is common in late Greek poetry is exploited here by the poet.

Finally, we should note the creation of the name Βρομιώτις C. IV 300, 340, as a feminine adjective of Βρομιώτης > Βρόμιος with the ending -ώτις; it is true that there are about twenty five feminine adjectives with this ending but few of them appear in poetry⁴; it is thus very

1. The poet of the *Cynegetica* seems to be fond of using adjectives in -ήϊος, -ήϊον, some of these forms are not attested elsewhere, e.g. βραβήϊα, λιγήϊα.

2. The name Ἀγασαίτης appears in Steph. Byz. s.v. Ἀγησός πόλις Θράκης... τὸ ἔθνηκόν Ἀγήσσιος ὡς Ἀσσήσσιος, Ταρτήσσιος... ἢ Ἀγησαίτης ὡς Ὀδησαίτης διὰ τὸ ὁμοειδές.

3. The phrase Μαυρίδα γαῖαν is not used elsewhere and it is formed on the analogy of Luc. Hist. 28 ἡ τῶν Μαύρων (γῆ) and other similar expressions.

4. cf. C. D. Buck-W. Petersen, *Reverse Index of Greek Nouns and Adjectives*, Hildesheim 1970 (Chicago 1945), 432; Callimachus, Del. 216 uses the adjective ἀγγελιώτις and we find in the *Epica Alexandrina Adespota* 9 VI 20 the form λασιώτις; there are also some -ώτις adjectives used in tragedy and lyric poetry.



unlikely that the poet of the Cynegetica created a new adjective just for metrical necessity; most probably he tried to show his erudition by utilizing a rare form in the hexameter.

Apart from these proper names, possibly invented by the poet of the Cynegetica of metrical necessity, there are also the names C. I 27, IV 285 *Θυωναῖος*, IV 237 *Ἀγηνορίς*, IV 165 *Μαρυανδέα*, I 233 *Χιμαροκτόνον* and 363 *Ἀμυκόφονον* which are not attested elsewhere but their creation does not seem to be connected with their metrical propriety in the hexameter.

Morphological analogies are also used in the Cynegetica if the name could not otherwise enter the verse. Metrical lengthening is utilized in the patronymic II 154 *Πριαμίδαισιν*¹ and in the place name I 275 *Σικελίης*, although the -ι- remains short I 170, 272, etc. in the name *Σικελοί*; the name *Ἀπόλλων* in its tetrasyllabic form II 2, the initial 'A- is counted long while in I 9 in the trisyllabic form it is taken as short²; the name *Ἀφροδίτη* is always used with a short initial 'A-³ and the name *Αἰγύπτιοι* in II 84 keeps the -υ- short before a consonantal group of a mute + liquid.

The epic genitive in -ῆος is used in the name II 113 *Εὐρυσθῆος*, II 26 *Σχοινῆος*, II 149 *Ἡρακλῆος*, in -αο, -οιο and -εω in the forms I 276, IV 112 *Εὐφρήταο*, II 140, IV 73 *Βορέαο*, III 314 *Τάυροιο*, II 623 *Βορειόνεω*⁴, the accusative in -ῆα in the name IV 243, etc. *Πενθῆα*, II 109 *Ἡρακλῆα*, III 246 *Θησῆα* and in -όντα in the name *Κτησιφόντα*, the latter form not attested elsewhere in Greek literature. The poet uses the epic genitive plural in -ηων and -αων to form proper names of the type -υ υ -, e.g. III 251, IV 147 *Αἰθιοπήων*, I 2 *Αἰεαδάων*.

1. cf. Wyatt, op. cit., 153ff. with further bibliography for the lengthening of -ι- in the first syllable of this patronymic.

2. The etymology of the word is unknown, cf. H. Frisk, *Griechisches etymologisches Wörterbuch*, Heidelberg 1960, I 124ff., thus epic lengthening can not be excluded in this case.

3. On the etymology of the name and its connection with *ἄφρος* cf. D. Boedeker, *Aphrodite's Entry into Greek Epic*, Mnemosyne, Supplement, 1974, 6ff., with further bibliography.

4. Some of these forms are quite rare; for instance the form *Πενθῆα* occurs before the Cynegetica only in Theocritus Id. XXVI 26 and afterwards adopted by Nonnus in the Dionysiaca; the word *Εὐφρήταο* is Hellenistic, first attested in Nic. Al. 245.



The form Διώνυσος is used together with Διώνυσος but only the epic Θρηῖτες instead of Θρᾶκες is found in the poem¹. The ionic forms Ἰήσων and Τεγεῖται which are used by the poet are functionally identical with Ἰάσων and Τεγεᾶται²; the form I 229 Μαχηδονίου when it is not used as a proper name is found only in epic poetry; the word is invented by Callimachus, Del. IV 167 and it is used by the poet of the Cynegetica in I 229. The form I 235 Ἀσιηγενέων, not attested elsewhere, instead the attic Ἀσιαγενέων which is found only in late prose. Finally, the ionic form Λιλυβήιον I 272 must be formed of metrical necessity, on the analogy of the feminine Λιλυβηίς invented by A.R. IV 919, as an alternative form of Λιλύβαιον³.

Meyer's Laws

In 1884 W. Meyer published his famous paper on the Greek hexameter which contains the three "laws" for the metre in Hellenistic epic poetry; these laws have since become an accepted criterion for most scholars⁴. The poet of the Cynegetica quite often violates Meyer's laws:

(I) The trochee or dactyl in the second foot must not be formed of the end of a word of three or more syllables beginning in the first foot⁵. The violation of this law is relatively more frequent in the Cynegetica than in any other Hellenistic or late epic poet.

a) As far as the dactyl is concerned, words beginning in the first foot end in two shorts in the second foot in the Cynegetica as follows:

| | |
|-------------|------------------------------|
| - υ υ - υ υ | II 8, III 117, IV 320 |
| υ - υ υ | II 158, 513, III 466, IV 285 |
| - - - υ υ | II 415 |

1. On the form Διώνυσος cf. Schulze, op. cit., 79. E. Schwyzer, *Griechische Grammatik*, München 1959, 183, and for the epic Θρηῖτες, cf. Schulze, op. cit., 179.

2. The form Ἰήσων is used only in epic poetry, cf. Schulze, op. cit., 383 n. 1 and the form Τεγεῖται occurs elsewhere but only in Herodotus.

3. cf. Buck-Petersen, op. cit., 45 for the few cases of attic adjectives in -αιος derived from -αιος.

4. Wilh. Meyer, Zur Geschichte des griechischen und des lateinischen Hexameters, *Sitzungsberichte der königl. Bayer Akademie der Wissenschaften* 1884, 979-1089. On the faults of Meyer's laws, cf. E. O'Neill Word Types in the Greek Hexameter YCS 8 (1942) 174ff. and H. Fränkel, op. cit. 197-229.

5. In reality Gieseke before Meyer had observed the rarity of words ending with two shorts in the second foot, cf. O'Neill, op. cit. 172f..



b) Most frequently in the Cynegetica a trochee, not a dactyl, forms the end of a word in the second foot; I have counted 98 cases as can be seen in the following table:

| | | | | |
|-----------|----|---|----|----|
| - υ υ - υ | 18 | 4 | 13 | 14 |
| υ υ - υ | - | 2 | - | - |
| - - - υ | 7 | 6 | 10 | 12 |
| υ - υ | 3 | 1 | 6 | 2 |

(II) Meyer's second law which states that the masculine caesura is formed by a disyllabic iambic word, is frequently violated by the poet of the Cynegetica. A total 10% of the hexameters with a masculine caesura are formed by a disyllabic iambic word in the Cynegetica (Book I 25 times, II 18, III 29, IV 14); this proportion is the highest in the epic poems of the Hellenistic and late era, cf. Meyer, op. cit., 985ff.¹

(III) If the arsis of the third foot comprises the end of a word, the arsis of the fifth foot must not do so.

I have found 73 violations of Meyer's third law in the Cynegetica, especially in the first and second book².

We have three hexameters in the Cynegetica which contain all three violations of Meyer's laws:

C. I 72 θηρητῆρε λύκους ὄλεσαν, θύνους ἀλιῆες

73 ἀγρευτῆρες οἷς, τρήρωνας ἔλον δονακῆες

IV 29 ἀλλὰ πόδεσσι θοοί· τοῖσιν δὲ θεὸς πόρε πάντα.

In addition to these lines we have thirty-nine hexameters where the first and second of Meyer's laws are violated together; five hexameters where the first and third laws and eight hexameters where the second and third laws are violated³. In conclusion, the violation of

1. Callimachus for instance has only thirteen such cases of a disyllabic iambic word in 325 hexameters with a masculine caesura; this is also a key feature of Homer's Odyssey and Aratus' Phaenomena. We might also add here that in the Cynegetica usually there is not a secondary caesura after the seventh element when a disyllabic iambic word forms the masculine caesura in the hexameter.

2. In the first and second book I have counted twenty-one and twenty-six cases respectively; in Callimachus' hexameters we have only two such examples, cf. J. Geffken, Leonidas von Tarant, *Jahrbuch für Classische Philologie*, Suppl. 23, Leipzig 1896, 142; the cases with the rest of Hellenistic and late epic poets are similar; Meyer's statistics are unreliable with regards to this, cf. O'Neill, op. cit., 174f., thus we can not come to any definite conclusion.

3. The hexameters with a masculine caesura are frequently violated by Meyer's laws; in the four books of the Cynegetica I counted 849 verses with a masculine cae-



Meyer's laws is more common in the *Cynegetica* than in any other Hellenistic or late epic poem. I can not find stylistical or other reasons to justify these violations apart perhaps from the weakness of the poet to construct the hexameter according to the principles of epic poetry.

Hiatus

Hiatus inside the line is not commonly used in the *Cynegetica*, due to the extensive use of the elision and especially to the elided monosyllables between the last vowel of a word and the first of the next word and also to the employment of -ν ἐφελκυστικόν in certain endings of the words. I have counted thirty-five cases of hiatus in the four books of the *Cynegetica*; the poet employs without any preference long and short vowels in hiatus¹. There are only two cases of hiatus after καί, while after elidable -αι the hiatus is completely avoided.

(I) A long vowel or a diphthong remains unshortened in the arsis of the first foot in the *Cynegetica* in I 318, 319 ἡ δτι, 434 ἡ ὀπόσοι, II 431 ἡ ὀπότε, 619 καὶ οἱ, IV 188 αὖ ἐρώων, 335 ἡ αὐτοῖσι. The long vowel unshortened in hiatus at the second arsis is found only before a digam-mated word in III 212 αὖ ἐρώωσιν². Hiatus in the arsis of the fourth foot is found in II 62 βυθίῳ δτε while in the arsis of the fifth foot we might notice three such examples, IV 83 ἡ ἐνι, 86 μεσάτῃ ἐνί, 88 αὖ ἐρύσαντες, a passage noticeable for its accumulation of hiatus.

(II) The hiatus is common at the thesis of the first foot, II 144 ἀμφι ἐ, 449 διπλὰ δέ οἱ, III 269 οὐνεκά οἱ, 436 οὐρή οἱ, 469 δειρή οἱ, IV 261 καὶ δὴ οἱ³. The two instances of hiatus in the thesis of the fifth foot are before digam-mated words, I 37 εὐκέρδεα ἔργα, II 246 μειδιῶντι

surā; in 85 hexameters we find the violation of the second law, in 73 the violation of the third, i.e. in 1: 5.6 hexameters the masculine caesura is formed either by a disyllabic iambic word or in both the arsis of the third and fifth foot we have the end of a word.

1. Of the thirty-five examples nineteen are with a long vowel and the remaining sixteen with a short vowel; it is noticeable that in the second book of the *Cynegetica* seven out of the nine cases of hiatus are employed with a short vowel. On correction in hiatus, cf. E. D. Clapp, *CP* 1(1906), 239-52.

2. The phrase αὖ ἐρώω with the hiatus of αὖ is well attested in Hellenistic and late epic poetry, e.g. Call. *Dian.* 92 while it is found eight times in the *Haliutica* of Oppian.

3. The phrase καὶ δὴ οἱ in hiatus occurs elsewhere, in this position in the hexameter, only in Hom. *x* 249 and in A.R. 3. 95.



ἔοικώς both phrases unexampled in Greek language. A long syllable or diphthong unshortened in the thesis of the third foot is found only in C. III 411 καὶ ἀργαλέους, while a short syllable in the second short of this foot is found in the phrases I 61, II 432 δι' ἡέρος, IV 370 τὸ δὲ οἶ. We have two examples of a final short vowel before an initial vowel in the second short of the fourth dactyl I 458 τετυπασμένα εἵκελα, IV 98 κρατερὸς δέ ἐ and one example of a short vowel in the second foot I 489 ἐπὶ ἄστν.

(III) As far as the hiatus in the main pause of the hexameter of the Cynegetica is concerned, the long vowel unshortened in hiatus at the masculine caesura occurs in I 135 ἀμφιλόκη, ὄθ', 520 τόξω ἐναλίγκιος IV 262 ὥραίη ἔλινος¹. At the feminine caesura hiatus is usually avoided; the only certain example is C. IV 353 κρατεροῖο ὑπ', while the phrase νοέοντα ἐν in II 400 is disputed, cf. Boudreaux's apparatus criticus ad. loc.. Finally, hiatus at the Bucolic Diaeresis is found in three passages; the most remarkable are perhaps III 377 ἀνάγκη ἴφι where we have a breach of the Bucolic Diaeresis accompanied by a strong pause and I 252 κηώδεϊ ἔλπετο where the hiatus follows a sense pause and a digammated word²; there is also a third passage II 403 ἐπεμήνατο ὕψοθι³.

Hence, we may conclude by that the poet of the Cynegetica follows the epic tradition; almost all the instances of hiatus have epic models; monosyllable elided particles, namely δ', γ', τ' are widely used to avoid hiatus.

As mentioned above hiatus is restricted in the Cynegetica also by the use of the -ν ἐφελκυστικὸν in certain endings, as it is shown in the following table⁴.

1. The form ἔλινος is the conjecture of Boudreaux against the mss reading σέλινος, cf. his apparatus criticus ad. loc.

2. This is the exception; usually when a digammated word occurs there is no sense pause. The sense pause after a word in hiatus is usually found in the genuine poems of Theocritus, cf. A. S. F. Gow, op. cit., Id. II 82 note.

3. For the rules of hiatus at the Bucolic Diaeresis, cf. J. van Leeuwen, op. cit., § 15.

4. I also counted the employment of -ν ἐφελκυστικὸν at the end of the hexameter, found frequently in the Cynegetica to avoid hiatus with the first word of the following hexameter. As far as I know the most in depth analysis of the -ν ἐφελκυστικὸν is by F. Isler, *Quaestiones Metricae*, Gryphiae 1906, for all the main epic poets from Homer to Nonnus, which I utilized for statistical purposes in this paper.



The two examples of $-ν$ ἐφελκυστικὸν in the arsis of the second foot I 16 ἐγὼν ἔραμαι, IV 16 ἐγὼν ἐρέω, are used in the personal pronoun ἐγὼ to avoid hiatus with the following word¹.

| | | | | | | | | | | | | | | | | | | |
|-------|---|---|----|---|----|---|---|-----|---|---|---|----|---|-----|----|---|-----|-----|
| I | - | 5 | 4 | 1 | 3 | 1 | - | 67 | - | - | - | 10 | - | 27 | 4 | - | 40 | 162 |
| II | - | 1 | 7 | - | 2 | 2 | - | 97 | - | - | 2 | 13 | - | 39 | 7 | - | 66 | 236 |
| III | - | 1 | 2 | - | 6 | - | - | 54 | - | - | 2 | 6 | - | 34 | 8 | - | 34 | 147 |
| IV | - | 2 | 1 | 1 | 7 | 1 | - | 61 | - | - | - | 15 | - | 29 | 4 | - | 34 | 155 |
| Total | - | 9 | 14 | 2 | 18 | 4 | - | 279 | - | - | 4 | 44 | - | 129 | 23 | - | 174 | 700 |

The poet of the *Cynegetica* seems to utilize the $-ν$ ἐφελκυστικὸν very often, on average at least once in every three lines²; the most remarkable hexameter in the poem with regard to the use of the $-ν$ ἐφελκυστικὸν is I 318 where it is used thrice producing stylistic effects of alliteration and omoioteleuton: ἦ ὅτι καλλικόμοισιν ἐν οὖρεσιν ἀλδήσκουσιν.

The $-ν$ ἐφελκυστικὸν is also used to lengthen a short final syllable before an initial consonant of the following word, usually in the arsis of the dactyl; it is not unusual for the poet of the *Cynegetica* to employ the $-ν$ ἐφελκυστικὸν in this usage as can be seen in the following table:

1. The employment of $-ν$ ἐφελκυστικὸν in the arsis to avoid hiatus is a Homericism, cf. Isler, *op. cit.*, 13; among the Hellenistic and late epic poets it is used frequently by Theocritus in the arsis of the second, Id. I 120, III 22, etc. and fourth foot, Id. I 14.

2. The corresponding analogy of the employment of $-ν$ ἐφελκυστικὸν to the hexameters are 1:9 for Homer, 1:10 for Hesiod, while among the Hellenistic epic poets Aratus with 1:13 and Theocritus (in Idylls I, VI, VII, XI, XVII, XXIV) with 1:10 seem to avoid such a usage; Oppian in the *Halieutica* with 1:4.34 and Apollonius Rhodius with 1:4.84 are close to the *Cynegetica*. From the other epic poets Callimachus (in his Hymns except hymn V, written in elegiac distich) with 1: 7 and Nicander with 1: 7.7 seem to be between the two edges.



| Books | - | υ | υ | - | υ | υ | - | υ | υ | - | υ | υ | - | υ | υ | - | - |
|-------|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|---|----|
| I | - | - | - | 10 | - | - | 3 | - | - | 5 | - | - | 2 | - | - | - | 20 |
| II | - | - | - | 15 | - | - | 1 | - | - | 6 | - | - | 2 | - | - | 1 | 25 |
| III | - | - | - | 11 | - | - | 2 | - | - | 6 | - | - | - | - | - | - | 19 |
| IV | - | - | - | 11 | - | - | 2 | - | - | 4 | - | - | 5 | - | - | - | 22 |
| Total | - | - | - | 47 | - | - | 8 | - | - | 21 | - | - | 9 | - | - | 1 | 86 |

The ν ἐπεὶ... before an initial consonant of the next word is used freely compared to other Hellenistic and late epic poets¹; all the examples occur in the arsis with a clear tendency to the arsis of the second dactyl as in all the epic poets from Homer to Nonnus; the one example of the use of ν ἐπεὶ... II 6 ἔχουσιν δὲ in the arsis of the sixth foot in the Cynegetica, seems to have three parallels in the first book of the Argonautica of Apollonius while it is very frequent in Homer: twenty-nine times in the Iliad and twenty-three in the Odyssey.

THE LOCALIZATION OF METRICAL WORD TYPES IN THE CYNEGETICA

The purpose of this section of the present paper is to discuss the distribution of the metrical word types in the positions that they can occupy in the hexameter of the Cynegetica. The method adopted for examining the "inner - metric"² of the Cynegetica is that determined by O'Neill³.

1. The total of the eighty-six occurrences of the ν ἐπεὶ... before a consonant in the 2144 hexameters of the Cynegetica gives a 3.73%. Here the poet of the Cynegetica follows Apollonius Rhodius with 3.59%; among the other epic poets Oppian in the Halieutica with 1% and Nicander with 1.30% seem to avoid the ν before a word beginning with a consonant while Callimachus with 2.33%, Theocritus with 2.66% and Aratus with 1.99% seem to stand in the middle; Nonnus seems to almost completely avoid the ν in this usage, cf. Isler, op. cit., 48; Homer uses this feature freely since we find 1279 cases, i.e. 4.6% of ν ἐπεὶ... before a consonant in the Iliad and in the Odyssey.

2. By the term "inner metric" I mean all the metrical limitations on the composition of the poem, some of them have already been discussed above, e.g. Meyer's Laws, Hermann's Bridge, etc.

3. E. O'Neill, The Localization of Metrical Word-types in the Greek Hexameter YCS 8 (1942) 105ff.. He was, to my knowledge, the first to systematically analyse the inner metric of the Greek hexameter; previously H. Fränkel, op. cit., 229f. had noticed this pervasion of the form in the Greek hexameter.



I have statistically classified 10735 words, contained in the 2144 verses of the four books of the *Cynegetica*, according to their metrical types and positions. The purpose is to present, analyse and compare the results with the statistics presented by O'Neill. I think that the tables at the end of the paper present the statistical analysis of the discussion as comprehensively as possible so that they can be compared with O'Neill's with great reliability.

A few remarks are necessary before we discuss the statistical data presented at the end of the paper. The tables are based on the format of O'Neill's tables to facilitate statistical analysis and comparison. O'Neill has chosen 1000 lines from each of the two Homeric poems and 1000 lines from each of the following poets: Hesiod, Apollonius Rhodius, Callimachus, Theocritus and the 1152 hexameters of the *Phaenomena* of Aratus, a minimal reliable basis for such statistical analysis, as he himself admits; on the other hand the total number of hexameters in the *Cynegetica* are 2144, more than double of the hexameters of each poet chosen by O'Neill.

I hereby try to solve this problem in two ways: First I compared the statistics of 991 lines of the *Cynegetica*, namely the first and fourth book, with the results presented by O'Neill; the deviation ranges between 0.1-0.5% in each type of word presented in the tables 1-28. On the other hand, I converted my results in tables 1-28 into a relative frequency to a scale of 1000 lines, as it is shown in table 30, a frequency which facilitates us in the comparison of the *Cynegetica* with every single poet chosen by O'Neill. The results in Table 30 show us another feature, the frequency or rarity of certain word types in the *Cynegetica* compared with the other epic poets; it answers the question of how often the poet uses the various types of the words. This procedure, although boring, keeps this part of the paper in the realm of observed facts without any theoretical explanation which would be by the nature of the subject conjectural to a high degree and beyond the purpose of this paper.

The first problem one faces when dealing with the metre is to decide what constitutes a word. The problem has been discussed by O'Neill, *op. cit.*, 108ff.. Moreover in every text the critic faces different problems; in the *Cynegetica* I have not found a case where an accented word and its enclitic constituting a metrical unit violates a metrical law, e.g. a dactyl ending at position 6, or the word types of - - υ υ and υ υ - υ υ ending in this position, as it occurs in other epic poets. It is true that in late epic poetry such metrical units felt to be metrically unacceptable, and that the enclitics with the words that precede them are avoi-



ded in those verse positions where single words of the same metrical type are not used. That enclitics, proclitics and the like in Hellenistic and late poetry possessed less independence than they had in Homer, has already been noted by O'Neill, loc. cit.; moreover that the combination of enclitics, proclitics and the like can constitute a word in the Cynegetica is shown in such lines as the following:

| | | |
|-----|-----|--|
| I | 87 | μηδ' ἔτι λεπταλέοι· καὶ γάρ ποτε δηρίσασθαι |
| | 93 | καὶ γάρ καὶ θήρεσσι πικρὸν φόνον ἐντύνουσιν, |
| | 164 | καὶ τ', ἄτοντ' αὐδὴν, κρυερὴν φύζανδε νέωνται |
| II | 308 | εἰ δέ τέ μιν στρεπτήσι πεδήσαντες βροχίδεσσιν |
| | 612 | οὐ μὲν θην οὐδ' ἀσπαλάγων αὐτόχθονα φῦλα |
| III | 258 | ἀλλ' εἰ καὶ ποθ' ἔλοιεν ἐϋστρέπτοισι βρόχοισιν |

There are numerous other examples. The words' metrical types are measured by the quantitative space they fill in the hexameter, that means that I disregard the prosodical irregularities, while the short syllable at the end of the hexameter is always taken as long¹. The results of my investigation as shown in the statistical tables correspond to those presented by O'Neill. The localization of all word types in the Cynegetica² is 91.00%, a percentage which is higher than the early epic poets, i.e. Homer and Hesiod, and stands between the lowest and the highest of the Alexandrians³. This figure of the localization in the Cynegetica is quite interesting in view of O'Neill's statement, pp. 117, 121 that the Alexandrians show higher percentages of the localization than the early epic poets. A similar analysis of the most important late writers of epic poetry, Oppians' Halieutica, Dionysius Periegetes, Quintus Smyrnaeus and Nonnus can prove O'Neill's thesis that localization is continuous from early epic to the Byzantine period and that the Cynegetica is an exception to this process or in the light of my investigation it would be shown that this procedure is developed and completed in the hexameters of Callimachus.

As far as the Cynegetica is concerned, as can be seen in table 29, a perfect localization is found in five word types, each one localized

1. The natural quantity of the words are examined in page 125 ff. above; for the last element in the verse cf. p. 119 f.

2. I excluded words of the type -, υ, υ υ, and also such rare types as υ υ - υ υ following O'Neill, thus my statistics are comparable to his.

3. Theocritus with 92.21% is the lowest of the Alexandrians while Callimachus, the most fastidious of all poets for his perfection in the form of his poetry localizes the vocabulary of his poems in the highest percentage of 97.34%.



in two positions in the hexameter (tables 17, 18, 19, 26, 27); from the remaining, six word types are localized in one position (tables 9, 10, 11, 16, 23, 24), four in two positions (tables 12, 13, 21, 22) and three word types in three positions (tables 4, 5, 8). The only word form localized in four positions, 2, 5, 7, 12 is the spondee (table 6) in 94.55% over the cases. The lowest localization (76.31%) is found in words of the type υ - υ (table 7), which is generally low in all epic poetry. There are few exceptions, compared with the other epic poets, of the preferred and avoided positions; the exceptions are also remarkable in that the order of preference in clear positions deviates in the *Cynegetica*.

A major problem in understanding the hexameter is not only what metrical types are used but also how they are used, i.e. how the individual words are combined into a verse; it is noteworthy that some combinations of word types give remarkable metrical and stylistical forms in the hexameter of the *Cynegetica*, e.g.

| | | |
|-----|-----|---|
| II | 410 | "Οβριμ' Ἐρωσ, πόσσοις ἐσσι πόση σέθεν ἀπλετος ἀλκή, |
| III | 455 | ἀργαλέη γενέσσοι καὶ ἀντία δηρίσασθαι |
| | 498 | ἀλλ' ἐμπης θέλειν ποσσὶ κραιπναὶ τελέθουσαι. |

It is not the purpose of the next pages to give an exhaustive verbal presentation of the statistical data that follows. I will concentrate only on a few points which I think are important for the understanding of the localization in the *Cynegetica*. The number of non localized elements are thirty -six but only one is absent in all the other epic poets, that is υ υ - , while two others are also absent from most epic poets, the elements - - - and υ - - -.

As far as the shorter types of words, i.e. the monosyllables and disyllables, are concerned in the *Cynegetica*¹ the concentration is in fewer positions than the other epic poets.

Words of the type υ are found in nine positions while it is strictly avoided in position 7 1/2. The concentration in the preferred positions are sharply distinguished from those in the avoided ones; the positions 2 and 6 with 26.60% and 24.77% respectively are distinguished from

1. I use the terms "shorter" and "longer" word types in a sense different to that of O'Neill, op. cit., 135 who regards longer word types all the words excluding only the types υ, - and υ υ. I classified the word types in shorter including monosyllables and disyllables while with the term longer word types I mean words, with four or more syllables.



the rest; the localization in these positions seems to be higher than in any other epic poet¹.

The word type — is usually avoided in the thesis of the dactyl; it is considerably restricted in the Alexandrian epic poetry and also seriously restricted in the Dionysiaca of Nonnus; in the Cynegetica, like in all the other epic poets, it is concentrated in positions 1 and 3; it is strictly avoided in positions 10 and 11 which are also considerably avoided in epic poetry. What is noticeable here is that position 12 which is infrequent in the other epic poets is preferred by the poet of the Cynegetica with 6.42%². Other positions where occurrences are extremely rare are 2, 5, 7, 8; thus we see that the favoured positions in this word type are more numerous than in any other epic poet, cf. O'Neill, op. cit., 123³.

The tenth element is never occupied by a single word, i.e. the tenth element is not monosyllabic in the poem⁴ and the second and fourth are never monosyllabic in the same line in the Cynegetica.

The type υ υ follows the distribution of the other epic poets in the clearly preferred position 8 (50.54%) in all four books of the Cynegetica, while there is no position where the type is universally avoided. Position 6 is secondly preferred (16.00%), a trend which we find only

1. The statistical data for the word types υ, - and υ υ presented by O'Neill op. cit., tables 1 and 2 is completely unreliable; although the author discusses the problem of what constitutes a word, op. cit., 108ff., he regards all the monosyllables, even enclitics, proclitics as independent metrical units; the results are really exaggerated; for instance he finds that 30% of the vocabulary of the Iliad and 29.36% of the Odyssey is constituted of monosyllables, while the percentage for Theocritus is 34%, i.e. almost one to three words in Theocritus is a monosyllable! similarly, O'Neill claims the percentages for Hesiod is 28.53%, for Callimachus 26.41% and for Apollonius it reaches almost 24%; at the same time he recounts all the enclitics, proclitics and the like with the words that constitute a metrical unit. So the total number of words presented by O'Neill in table 30 is wrong.

2. For the use of monosyllables in the text of the Cynegetica cf. p. 119 f. above.

3. I disagree with O'Neill that the localization of the monosyllable word types does not follow that of the longer word types in the sense that there are not some clearly preferred and other clearly avoided positions. In the words of the type υ the four preferred positions 1 1/2, 2, 5 1/2, and 6 localize the 73.40% of all words of this type used in the Cynegetica and in the word type - the respective positions 1, 3, 6 localize the 77.95%.

4. As E. Gerhard noticed, *Lectiones Apollonianae*, Berlin 1816, 143f. long final endings in position 10 is almost unexampled in the hexameter; I have found no such word ending with a long vowel in position 10 in the Cynegetica.



in Hesiod while it is consistently avoided, standing fourth in Callimachus (9.6%) and Apollonius Rhodius (7.8%); position 2 is avoided in the *Cynegetica* while it is preferred by all the other epic poets from Homer to Theocritus.

Words of the type υ — are a typical example of localization in epic poetry spanning over ten centuries, i.e. from Homer down to ps. Oppian's *Cynegetica*: such words are localized in positions 3, 5 and 7 with concentration in position 7 far greater than the other two positions.

The localization of words with the type — υ varies in the *Cynegetica* from the other epic poets. The concentration is in position 1 1/2 (45.00%) and 9 1/2 (31.40%) while in the remaining of other epic poetry apart from position 1 1/2, the second more frequent position is in the feminine caesura, cf. O'Neill, op. cit., 140, table 5; in the *Cynegetica* the only example of words of the type — υ in position 7 1/2 is II 380, a hexameter disputed both by byzantine copyists and modern scholars, cf. Boudreaux's apparatus ad loc. Words of the type — υ and υ — are frequently combined at the beginning of the hexameter, as words of the type υ — are also combined with words of the type $\upsilon \upsilon$ in positions 7 and 8 in all four books of the *Cynegetica*.

Words with a spondaic form are clearly concentrated in positions 2 and 12 with 24.80% and 45.30% respectively while there are two other positions, i.e. the masculine caesura (12.95%) and the hephemimeral caesura (11.55%); the poet strictly avoids spondaic words in positions 6, 10, 11 while there are a few cases of such words ending in position 9¹. A spondee ending in position 4 occurs only once, C. IV 253²; in position 8 the only example of a breach of Bucolic Diaeresis consisted of a word type — — is IV 145, i.e. in epic poetry disyllable words with a long ending are avoided in position 8.

Three syllable words are the most frequent in the *Cynegetica* comprising 30.06% of the whole vocabulary of the poem³.

1. The rule that there is no word-end after both the seventh and ninth elements of the same line, cf. Maas, op. cit., § 97 is often violated by the poet of the *Cynegetica*. I have counted twenty cases of words of the type — — occupying positions 8 and 9 and thirty-four cases of words of the type $\upsilon \upsilon$ — occupying the same positions; usually a main feminine caesura occurs in the line.

2. The occurrence of word types — — in position 4 is frequent in Homer and Hesiod but it is restricted among the Hellenistic and late epic poets, cf. O'Neill, op. cit., 172 with the statistics provided.

3. The respective percentage in Homer is Il. 27.91%, Od. 21.22%; in Hes. 22.81%, Arat. 23.10%, Call. 23.43%, A. R. 21.69% and Theocr. 21.47%; ps. Oppian here comes close to the Iliad of Homer not only in the frequency of the trisyllabic words but also in the position these words are occupy in the hexameter.



Words with the type - υ υ are localized in the first foot (55.80%), a percentage far higher than any other epic poet¹. This is perhaps due to the type of the enjambement, used very frequently by the poet of the Cynegetica, where the hexameter continues its meaning in the first dactyl of the next line. On the contrary, ps. Oppian avoids the localization of the - υ υ words in position 8, which is preferred by all the other epic poets².

Words of the type υ υ - are localized in the Cynegetica in a different pattern from the rest of epic poetry. Although the poet of the Cynegetica distributes the words in the same positions, except position 11 which he strictly avoids; he usually localizes such words in position 7 (50.50%) and less frequently in position 5 (33.15%); this is the second clearly preferred position by most of the other epic poets. Such word types are either repeated, usually in positions 5 and 7 or are combined with words of the type - - υ. The localization of word types υ - υ is the lowest in the Cynegetica with the preferred 5 1/2 position where we find 76.30% of all words of this type; in the remaining three positions (3 1/2, 7 1/2, 9 1/2) the words are equally distributed; what we might notice is that this word type is repeated frequently in the same hexameter especially in the 3 1/2 and 5 1/2 positions³.

The localization of the other trisyllabic word types follow the trends of archaic and Hellenistic epic poetry. The localization of words with the type - - υ seems more similar to Alexandrian epic poets than to Homer and Hesiod; position 7 1/2 is more frequently occupied in the Cynegetica than in any other epic poet. As far as words of the type - - - are concerned, there are two positions where more than 96% of these words are localized; position 5 (74.70%) followed by position 7 (21.90%), the former being the most frequent position among the epic poets. There is also one example in position 8⁴.

1. Apollonius Rhodius with 45.3% comes close here to the poet of the Cynegetica while Theocritus with only 19.9% is the epic poet with the lowest percentage in this position in the hexameter.

2. ps. Oppian with 9.60% has the lowest localization in position 8.

3. Almost half of the words of this type found in position 3 1/2 are repeated also in position 5 1/2; in the C. IV 399 δξὺ λέλγηκε θοροῦσα καὶ δξὺ δέδορκε λακοῦσα words of the type υ - υ are repeated four times while we might notice the stylistic effect of assonance and alliteration in the line; in I 459 ἐχθρόν ἔαρ δὲ κύνεσσι, φίλον δὲ πέλει φθινόπωρον, the word type υ - υ is repeated three times in succession.

4. cf. C. I 244 αὐτὰρ ἐπεὶ μέγας ἦν, πειρᾶτο σχέτλιος ἀνὴρ; the verb πειρᾶτο is disputed by modern scholars, cf. Boudreaux, apparatus ad. loc..



As far as the four syllable words are concerned the poet of the *Cynegetica* follows the epic tradition with a few exceptions; words with the form - υ υ - are localized in positions 3 and 5 (95.50%)¹, while words with this form are avoided in position 7, 9 and 11².

Words with the type υ υ - - are localized in position 12 in all but three examples which are localized in position 8³; in the usage of words with the type υ - - - the poet of the *Cynegetica* follows Homer and Apollonius Rhodius with such words localized in only two positions 5 and 9. As far as words with the form - - - υ are concerned, the poet localizes these in position 3 1/2 and in the feminine caesura (96.65%); most of the words in position 3 1/2 are usually constituted from a word of the type - - - followed by the enclitics τε or δέ, which is usually avoided in epic poetry⁴. In the *Cynegetica* only five cases of such words occur in position 9 1/2, although this type is frequently used by the other epic poets, cf. O'Neill, op. cit., table 21.

Words with the form - - - - occur frequently in the *Cynegetica*⁵ ending the hexameter in 97.85% of all the cases; the remaining 2.15% is distributed in positions 4 (IV 342), 5 (III 444) and 9 (I 317, 481, II 572)⁶.

1. This percentage is the highest among the epic poets; the poet of the *Cynegetica* is following here Apollonius Rhodius and Callimachus who have 94.6% and 92.6% respectively in this position.

2. The only examples of - υ υ - word types in position 7 are C. I 112 καὶ μεσάτου, ποτὲ δ' ἐσπερίου ποτὲ δ' αὖτε καὶ ὄρνυ, and II 612 Οὐ μὲν θῆν οὐδ' ἀσπυλάκων αὐτόχθονα φύλα, two out of the five hexameters without a main caesura in the *Cynegetica*, cf. p. 121 n. 1 above. It is worthy of notice here that out of the twenty three cases of monosyllabic words in position 12, seventeen follow a word of the type - υ υ - in position 11, i.e. the combination of the types - υ υ - and - is very common in the *Cynegetica*.

3. C. IV 36, 179, while in I 26 Λεῖψομεν, ὡς κέλει, τὸ σαβάζειν νύκτερ θύσας, the phrase τὸ σαβάζειν is disputed by modern critics, cf. G. Giangrande, On the text of ps. Oppian. *Cynegetica*, *GRBS* 13 (1972), 489.

4. In such cases being a violation of Meyer's first law cf. O'Neill, op. cit., 111.

5. A total of 2.18% of the whole vocabulary of the *Cynegetica*; Apollonius Rhodius with 1.17% comes close to ps. Oppian.

6. In all the above cases, except II 481, the word of the type - - - - consists of a trisyllabic word with a monosyllabic enclitic; we might notice here that in "wrong" positions the poet of the *Cynegetica* usually employs a coherent word group consisting of a word with the enclitic τε, the particle δέ or an article.



Longer words cover a large proportion of the vocabulary of the Cynegetica compared with other epic poets¹. The localization follows the other epic poets closely. In the words with the type - υ υ - - - the localization is concentrated in position 12 with three examples found in position 4, each one being a combination of a coherent word group. Perhaps we should comment on the rare types of the words used in the Cynegetica; table 28 gives an idea of these word types. There is a total of 116 words in twenty-four word types (not included in tables 1-27); five of them are found in two different positions and one in four positions in the hexameter². Twenty-one of these words are constituted of a single word while ninety-five are a combination of a coherent word group. Almost all the rare word types found in the Cynegetica are also attested in the other epic poets³.

Longer word types are often juxtaposed occupying either the first or the second part of the hexameter; such juxtaposition is found in the following word types, - - - - with - υ υ - - III 444, etc., the word type υ - υ υ - υ is repeated twice in the same hexameter, e.g. I 115, II 474, etc., the word type υ υ - υ with - - -, e.g. I 195, 482, II 64, 272, III 3, 284, IV 49, 349, etc..

TABLE ONE: Words of the type υ

| Books | Position | | | | | | | | | | Total |
|-------|----------|--------|-------|-------|--------|--------|-------|-------|--------|-------|-------|
| | 1 1/2 | 2 | 3 1/2 | 4 | 5 1/2 | 6 | 7 1/2 | 8 | 9 1/2 | 10 | |
| I | 2 | 4 | 3 | - | 3 | 7 | - | 1 | 2 | 3 | 25 |
| II | 2 | 8 | - | - | 3 | 9 | - | - | 6 | 1 | 29 |
| III | 4 | 9 | 2 | - | 5 | 11 | - | - | - | - | 31 |
| IV | 4 | 8 | 2 | 1 | 1 | 3 | - | - | 4 | 1 | 24 |
| Total | 12 | 29 | 7 | 1 | 12 | 30 | - | 1 | 12 | 5 | 109 |
| | 11.01% | 26.60% | 6.42% | 0.91% | 11.01% | 27.52% | | 0.91% | 11.01% | 4.59% | |

1. A total of 16.00% of the whole vocabulary in the Cynegetica is consisted of five and six syllable words; the respective percentage for the other epic poets are Iliad 6.66, Odyssey 5.66%, Apollonius Rhodius 6.84% while it is lower in all the other epic poets.

2. The word type - - υ υ - is common in the Cynegetica, attested twenty-four times and although it should be in a separate table, I preferred to put it in table 28 following O'Neill's format.

3. The word types which are not found in the other epic poetry are: - υ υ - υ υ - υ, - - υ υ - υ, - - - υ υ - υ, - - υ υ - - - υ, - - - - υ υ, υ - υ υ - -. Some of them are commonly found in the Cynegetica, e.g. - - υ υ - υ is found twelve times in position 9 1/2 and once in position 5 1/2.



TABLE TWO: Words of the type —

| Books | Position | | | | | | | | | | | | Total |
|-------|----------|-------|--------|-------|-------|-------|-------|-------|-------|----|----|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| I | 53 | 2 | 12 | - | 1 | 9 | - | 1 | 3 | - | - | 4 | 85 |
| II | 54 | 6 | 28 | 6 | 1 | 10 | 1 | 1 | 5 | - | - | 5 | 117 |
| III | 42 | - | 12 | 4 | 1 | 4 | 2 | 2 | 5 | - | - | 9 | 81 |
| IV | 37 | - | 11 | 3 | 1 | 7 | - | 2 | 9 | - | - | 5 | 75 |
| Total | 186 | 8 | 63 | 13 | 4 | 30 | 3 | 6 | 22 | - | - | 23 | 358 |
| | 51.96% | 2.23% | 17.60% | 3.63% | 1.12% | 8.38% | 0.84% | 1.67% | 6.14% | | | 6.42% | |

TABLE THREE: Words of the type υ υ

| Books | Position | | | | | Total |
|-------|----------|--------|--------|--------|--------|-------|
| | 2 | 4 | 6 | 8 | 10 | |
| I | 18 | 13 | 21 | 53 | 6 | 111 |
| II | 9 | 16 | 18 | 68 | 13 | 124 |
| III | 13 | 16 | 11 | 80 | 13 | 133 |
| IV | 11 | 12 | 22 | 37 | 19 | 101 |
| Total | 51 | 57 | 72 | 238 | 51 | 469 |
| | 10.87% | 12.15% | 15.35% | 50.74% | 10.87% | |



TABLE FOUR: Words of the type \bar{v} -

| Books | Position | | | | | Total |
|-------|----------|--------|--------|-------|-------|-------|
| | 3 | 5 | 7 | 9 | 11 | |
| I | 32 | 24 | 84 | 2 | 2 | 144 |
| II | 36 | 15 | 116 | 8 | - | 175 |
| III | 38 | 25 | 103 | - | 1 | 167 |
| IV | 34 | 12 | 79 | 4 | - | 129 |
| Total | 140 | 76 | 382 | 14 | 3 | 615 |
| | 22.76% | 12.36% | 62.11% | 2.28% | 0.49% | |

TABLE FIVE: Words of the type - \bar{v}

| Books | Position | | | | | Total |
|-------|----------|-------|--------|-------|--------|-------|
| | 1 1/2 | 3 1/2 | 5 1/2 | 7 1/2 | 9 1/2 | |
| I | 97 | 21 | 21 | - | 68 | 207 |
| II | 93 | 27 | 38 | 1 | 63 | 222 |
| III | 104 | 18 | 34 | - | 76 | 232 |
| IV | 90 | 16 | 26 | - | 61 | 193 |
| Total | 384 | 82 | 119 | 1 | 268 | 854 |
| | 44.97% | 9.60% | 13.93% | 0.01% | 31.38% | |



TABLE SIX: Words of the type - -

| Books | Position | | | | | | | | | | | Total |
|-------|----------|-------|-------|--------|---|--------|-------|-------|----|----|--------|-------|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| I | 69 | 9 | - | 38 | - | 37 | - | 3 | - | - | 115 | 271 |
| II | 84 | 10 | - | 46 | - | 39 | - | 12 | - | - | 139 | 330 |
| III | 67 | 11 | - | 34 | - | 31 | - | 3 | - | - | 131 | 277 |
| IV | 48 | 7 | 1 | 22 | - | 18 | 1 | 2 | - | - | 105 | 204 |
| Total | 268 | 37 | 1 | 140 | - | 125 | 1 | 20 | - | - | 490 | 1082 |
| | 24.77% | 3.42% | 0.09% | 12.94% | | 11.55% | 0.09% | 1.85% | | | 45.29% | |

TABLE SEVEN: Words of the type U U -

| Books | Position | | | | | Total |
|-------|----------|--------|--------|-------|----|-------|
| | 3 | 5 | 7 | 9 | 11 | |
| I | 10 | 42 | 62 | 6 | - | 120 |
| II | 19 | 57 | 68 | 11 | - | 155 |
| III | 9 | 39 | 71 | 7 | - | 126 |
| IV | 10 | 28 | 52 | 10 | - | 100 |
| Total | 48 | 166 | 253 | 34 | - | 501 |
| | 9.58% | 33.13% | 50.50% | 6.79% | | |



TABLE EIGHT: Words of the type - υ υ

| Books | Position | | | | | Total |
|-------|----------|-------|---|--------|--------|-------|
| | 2 | 4 | 6 | 8 | 10 | |
| I | 124 | 10 | - | 21 | 59 | 214 |
| II | 125 | 12 | - | 18 | 69 | 224 |
| III | 100 | 14 | - | 19 | 67 | 200 |
| IV | 97 | 4 | - | 22 | 38 | 161 |
| Total | 446 | 40 | - | 80 | 233 | 799 |
| | 55.81% | 5.00% | | 10.00% | 29.17% | |

TABLE NINE: Words of the Type υ - υ

| Books | Position | | | | Total |
|-------|----------|--------|-------|-------|-------|
| | 3 1/2 | 5 1/2 | 7 1/2 | 9 1/2 | |
| I | 4 | 37 | 5 | 1 | 47 |
| II | 1 | 41 | 5 | 4 | 51 |
| III | 9 | 33 | 2 | 4 | 48 |
| IV | 4 | 34 | 3 | 3 | 44 |
| Total | 18 | 145 | 15 | 12 | 190 |
| | 9.47% | 76.31% | 7.90% | 6.31% | |



TABLE TEN: Words of the Type $\upsilon - -$

| Books | Position | | | | | Total |
|-------|----------|---|-------|----|--------|-------|
| | 4 | 6 | 8 | 10 | 12 | |
| I | - | - | 10 | - | 220 | 230 |
| II | - | - | 13 | - | 244 | 257 |
| III | - | - | 6 | - | 214 | 220 |
| IV | - | - | 9 | - | 187 | 196 |
| Total | - | - | 38 | - | 865 | 903 |
| | | | 4.21% | | 95.79% | |

TABLE ELEVEN: Words of the type $\upsilon - \upsilon \upsilon$

| Books | Position | | | | Total |
|-------|----------|---|--------|-------|-------|
| | 4 | 6 | 8 | 10 | |
| I | - | - | 85 | 9 | 94 |
| II | 2 | - | 126 | 6 | 134 |
| III | 2 | - | 94 | 3 | 99 |
| IV | 2 | - | 90 | 5 | 97 |
| Total | 6 | - | 395 | 23 | 424 |
| | 1.43% | | 93.16% | 5.42% | |



TABLE TWELVE: Words of the type - - υ

| Books | Position | | | | Total |
|-------|----------|--------|-------|--------|-------|
| | 31/2 | 51/2 | 71/2 | 91/2 | |
| I | - | 52 | 5 | 31 | 88 |
| II | 1 | 100 | 4 | 39 | 144 |
| III | 3 | 64 | 4 | 31 | 102 |
| IV | 2 | 61 | 5 | 24 | 92 |
| Total | 6 | 277 | 18 | 125 | 426 |
| | 1.41% | 65.02% | 4.22% | 29.34% | |

TABLE THIRTEEN: Words of the type υ υ - υ

| Books | Position | | | | Total |
|-------|----------|--------|-------|--------|-------|
| | 31/2 | 51/2 | 71/2 | 91/2 | |
| I | 3 | 74 | 2 | 44 | 123 |
| II | 1 | 113 | 6 | 47 | 167 |
| III | - | 92 | - | 34 | 126 |
| IV | - | 85 | 3 | 34 | 122 |
| Total | 4 | 364 | 11 | 159 | 538 |
| | 0.74% | 67.66% | 2.04% | 29.56% | |



TABLE FOURTEEN: Words of the type - - -

| Books | | Position | | | | | | | | | | Total |
|-------|--------|----------|--------|---|---|------|-------|----|----|-------|--|-------|
| | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | |
| I | 62 | - | 26 | - | - | 1 | 2 | - | - | 1 | | 92 |
| II | 107 | - | 24 | - | - | - | 2 | - | - | 2 | | 135 |
| III | 72 | - | 18 | - | - | - | - | - | - | 3 | | 93 |
| IV | 63 | - | 21 | - | - | - | 1 | - | - | 2 | | 87 |
| | 304 | - | 89 | - | - | 1 | 5 | - | - | 8 | | 407 |
| | 74.70% | | 21.87% | | | 0.2% | 1.23% | | | 1.97% | | |

TABLE FIFTEEN: Words of the type - υ υ -

| Books | | Position | | | | | Total |
|-------|--------|----------|-------|-------|-------|--|-------|
| | 3 | 5 | 7 | 9 | 11 | | |
| I | 103 | 51 | 1 | 2 | 1 | | 158 |
| II | 137 | 45 | 1 | 5 | 4 | | 192 |
| III | 112 | 57 | - | 1 | 8 | | 178 |
| IV | 86 | 44 | - | 3 | 4 | | 137 |
| Total | 438 | 197 | 2 | 11 | 17 | | 665 |
| | 65.87% | 29.62% | 0.30% | 1.65% | 2.56% | | |

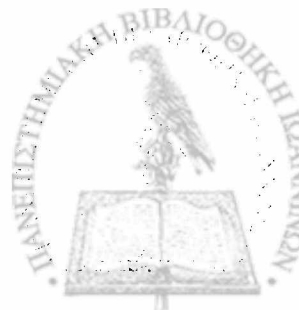


TABLE SIXTEEN: Words of the type $u u - -$

| Books | Positions | | | | | Total |
|-------|-----------|---|-------|----|--------|-------|
| | 4 | 6 | 8 | 10 | 12 | |
| I | - | - | 1 | - | 73 | 74 |
| II | - | - | - | - | 97 | 97 |
| III | - | - | - | - | 48 | 48 |
| IV | - | - | 2 | - | 59 | 61 |
| Total | - | - | 3 | - | 277 | 280 |
| | | | 1.07% | | 98.93% | |

TABLE SEVENTEEN: Words of the type $- - u u$

| Books | Position | | | | Total |
|-------|----------|---|--------|--------|-------|
| | 4 | 6 | 8 | 10 | |
| I | - | - | 30 | 6 | 36 |
| II | - | - | 22 | 7 | 29 |
| III | - | - | 18 | 8 | 26 |
| IV | - | - | 14 | 12 | 26 |
| Total | - | - | 84 | 33 | 117 |
| | | | 71.80% | 28.20% | |



TABLE EIGHTEEN: Words of the type $\nu \nu - \nu \nu$

| Books | Position | | | | Total |
|-------|----------|---|--------|--------|-------|
| | 4 | 6 | 8 | 10 | |
| I | - | - | 43 | 36 | 79 |
| II | - | - | 35 | 37 | 72 |
| III | - | - | 51 | 37 | 88 |
| IV | - | - | 30 | 24 | 54 |
| Total | - | - | 159 | 134 | 293 |
| | | | 54.27% | 45.73% | |

TABLE NINETEEN: Words of the type $\nu - - -$

| Books | Position | | | | Total |
|-------|----------|---|--------|----|-------|
| | 5 | 7 | 9 | 11 | |
| I | 22 | - | 20 | - | 42 |
| II | 15 | - | 27 | - | 42 |
| III | 13 | - | 11 | - | 24 |
| IV | 14 | - | 13 | - | 27 |
| Total | 64 | - | 71 | | 135 |
| | 47.41% | | 52.59% | | |



TABLE TWENTY: Words of the type $\bar{u} - \bar{u} \bar{u} -$

| Books | Position | | | | Total |
|-------|----------|-------|--------|----|-------|
| | 5 | 7 | 9 | 11 | |
| I | 12 | - | 35 | - | 47 |
| II | 18 | - | 40 | - | 58 |
| III | 20 | - | 25 | - | 45 |
| IV | 19 | 1 | 38 | - | 58 |
| Total | 69 | 1 | 138 | - | 208 |
| | 33.17% | 0.48% | 66.35% | | |

TABLE TWENTY ONE: Words of the type $- - - \bar{u}$

| Books | Position | | | | Total |
|-------|----------|--------|-------|-------|-------|
| | 3 1/2 | 5 1/2 | 7 1/2 | 9 1/2 | |
| I | 10 | 49 | - | 3 | 62 |
| II | 13 | 48 | - | 2 | 63 |
| III | 11 | 33 | - | 2 | 46 |
| IV | 12 | 26 | - | - | 38 |
| Total | 46 | 156 | - | 7 | 209 |
| | 22.01% | 74.64% | | 3.35% | |



TABLE TWENTY TWO: Words of the type - $\cup \cup$ - \cup

| Books | Position | | | | Total |
|-------|----------|--------|------|-------|-------|
| | 31/2 | 51/2 | 71/2 | 91/2 | |
| I | 18 | 49 | - | 5 | 72 |
| II | 11 | 45 | - | 8 | 64 |
| III | 14 | 34 | - | 5 | 53 |
| IV | 10 | 44 | - | 3 | 57 |
| Total | 53 | 172 | - | 21 | 246 |
| | 21.54% | 69.92% | | 8.54% | |

TABLE TWENTY THREE: Words of the type - - - -

| Books | Position | | | | | | | | | Total |
|-------|----------|-------|---|---|---|-------|----|----|--------|-------|
| | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| I | - | - | - | - | - | 2 | - | - | 58 | 60 |
| II | - | - | - | - | - | 1 | - | - | 64 | 65 |
| III | - | 1 | - | - | - | - | - | - | 63 | 64 |
| IV | 1 | - | - | - | - | - | - | - | 41 | 42 |
| Total | 1 | 1 | - | - | - | 3 | - | - | 226 | 231 |
| | 0.43% | 0.43% | | | | 1.30% | | | 97.83% | |



TABLE TWENTY FOUR: Words of the type - u u - -

| Books | Position | | | | | Total |
|-------|----------|---|---|----|--------|-------|
| | 4 | 6 | 8 | 10 | 12 | |
| I | - | - | - | - | 66 | 66 |
| II | 1 | - | - | - | 72 | 73 |
| III | - | - | - | - | 52 | 52 |
| IV | 2 | - | - | - | 53 | 55 |
| | 3 | - | - | - | 243 | 246 |
| | 1.22% | | | | 98.78% | |

TABLE TWENTY FIVE: Words of the type u u - u u -

| Books | Position | | | | Total |
|-------|----------|--------|--------|-------|-------|
| | 5 | 7 | 9 | 11 | |
| I | 2 | - | 5 | - | 7 |
| II | - | - | 3 | - | 3 |
| III | - | 1 | 1 | - | 2 |
| IV | - | 1 | 3 | 1 | 5 |
| | 2 | 2 | 12 | 1 | 17 |
| | 11.76% | 11.76% | 70.58% | 5.88% | |



TABLE TWENTY SIX: Words of the type $\cup - - - \cup$

| Books | Position | | | Total |
|-------|----------|-------|--------|-------|
| | 5 1/2 | 7 1/2 | 9 1/2 | |
| I | 11 | - | 45 | 56 |
| II | 11 | - | 36 | 47 |
| III | 6 | - | 34 | 40 |
| IV | 8 | - | 28 | 36 |
| | 36 | - | 143 | 179 |
| | 20.11% | | 79.89% | |

TABLE TWENTY SEVEN: Words of the type $\cup - \cup \cup - \cup$

| Books | Position | | | Total |
|-------|----------|-------|--------|-------|
| | 5 1/2 | 7 1/2 | 9 1/2 | |
| I | 9 | - | 21 | 30 |
| II | 7 | - | 26 | 33 |
| III | 10 | - | 18 | 28 |
| IV | 3 | - | 24 | 27 |
| Total | 29 | - | 89 | 118 |
| | 24.58% | | 75.42% | |



TABLE TWENTY EIGHT: Rare types

| Word type | Position | Books | | | | Total |
|-----------------|----------|-------|----|-----|----|-------|
| | | I | II | III | IV | |
| - υ υ - υ υ | 4 | - | - | 1 | 1 | 2 |
| - - - υ υ | 4 | - | 1 | - | - | 1 |
| - υ υ - - - | 5 | 4 | - | 1 | 1 | 6 |
| - υ υ - υ υ - | 5 | 1 | 3 | 3 | 3 | 10 |
| - υ υ - υ υ - | 9 | - | - | 1 | - | 1 |
| - - υ υ - | 5 | 1 | 1 | 1 | - | 3 |
| - - υ υ - | 7 | - | 1 | - | - | 1 |
| - - υ υ - | 9 | 4 | 6 | 8 | 2 | 20 |
| - - υ υ - | 11 | 1 | - | - | - | 1 |
| υ υ - - - | 5 | 1 | - | - | - | 1 |
| υ υ - - - | 9 | - | 2 | 2 | - | 4 |
| - - - - - | 5 | 1 | - | - | - | 1 |
| - υ υ - υ υ - υ | 5 1/2 | - | - | - | 1 | 1 |
| - - υ υ - υ | 5 1/2 | - | 1 | - | - | 1 |
| - - υ υ - υ | 9 1/2 | 2 | 3 | 5 | 3 | 13 |
| - υ υ - - - υ | 5 1/2 | - | - | - | 2 | 2 |
| υ υ - - - υ | 5 1/2 | 1 | - | - | - | 1 |
| υ υ - - - υ | 9 1/2 | - | 1 | 3 | 1 | 5 |
| - - - υ υ - υ | 5 1/2 | - | 1 | - | - | 1 |
| - - - υ υ - υ | 9 1/2 | - | 1 | - | - | 1 |
| - - υ υ - υ | 5 1/2 | - | 1 | - | - | 1 |
| υ υ - υ υ - υ | 9 1/2 | 4 | 3 | 2 | 2 | 11 |
| - - υ υ - - - υ | 9 1/2 | - | - | 1 | - | 1 |
| - - - - υ | 9 1/2 | 1 | - | - | - | 1 |
| υ - υ υ - υ υ | 10 | 1 | 3 | 1 | 2 | 7 |
| υ - - - υ υ | 10 | 1 | 1 | 2 | 2 | 6 |
| - - υ υ - υ υ | 10 | - | - | 1 | - | 1 |
| - - - - υ υ | 10 | - | - | 1 | - | 1 |
| υ υ - υ υ - - | 12 | - | 1 | 2 | 1 | 4 |
| υ υ - - - - | 12 | 1 | 1 | 2 | - | 4 |
| υ - υ υ - - | 12 | - | 1 | - | - | 1 |
| - - υ υ - - | 12 | 1 | 1 | - | - | 2 |
| Total | | 25 | 33 | 37 | 21 | 116 |



TABLE TWENTY NINE

| Word type | Position of Localization | Percentages of localization |
|-------------|--------------------------|-----------------------------|
| υ - | 3, 5, 7 | 97.21% |
| - υ | 11/2, 51/2, 91/2 | 90.08% |
| - - | 2, 5, 7, 12 | 94.39% |
| υ υ - | 3, 5, 7 | 93.56% |
| - υ υ | 2, 8, 10 | 95.37% |
| υ - υ | 51/2 | 76.43% |
| υ - - | 12 | 95.89% |
| υ - υ υ | 8 | 93.11% |
| - - υ | 51/2, 91/2 | 94.58% |
| υ υ - υ | 51/2, 91/2 | 97.21% |
| - - - | 3, 5 | 96.08% |
| - υ υ - | 3,5 | 95.61% |
| υ υ - - | 12 | 98.92 % |
| - - υ υ | 8,10 | 100% |
| υ υ - υ υ | 8,10 | 100% |
| υ - - - | 5,9 | 100% |
| υ - υ υ - | 5,9 | 100% |
| - - - υ | 31/2, 51/2 | 96.96% |
| - υ υ - υ | 31/2, 51/2 | 91.96% |
| - - - - | 12 | 97.83% |
| - υ υ - - | 12 | 98.79% |
| υ - - - υ | 51/2, 91/2 | 100% |
| υ - υ υ - υ | 51/2, 91/2 | 100% |



TABLE THIRTY

Word types Frequency in the Relative frequency
Cynegetica in the scale of
1000 lines

| | | |
|-------------|------|-----|
| υ | 97 | 45 |
| - | 351 | 164 |
| υ υ | 462 | 215 |
| υ - | 612 | 285 |
| - υ | 838 | 391 |
| - - | 1077 | 502 |
| υ υ - | 499 | 233 |
| - υ υ | 803 | 375 |
| υ - υ | 191 | 90 |
| υ - - | 902 | 421 |
| υ - υ υ | 421 | 196 |
| - - υ | 426 | 199 |
| υ υ - υ | 539 | 251 |
| - - - | 408 | 190 |
| - υ υ - | 662 | 309 |
| υ υ - - | 280 | 131 |
| - - υ υ | 118 | 55 |
| υ υ - υ υ | 293 | 137 |
| υ - - - | 133 | 62 |
| υ - υ υ - | 210 | 98 |
| - - - υ | 210 | 98 |
| - υ υ - υ | 250 | 117 |
| - - - - | 231 | 108 |
| - υ υ - - | 248 | 116 |
| υ υ - υ υ - | 17 | 7 |
| υ - - - υ | 181 | 84 |
| υ - υ υ - υ | 121 | 57 |
| rare types | 116 | 54 |

