A STUDY OF THE VOCABULARY OF VERGIL'S ECLOGUES*

The traditional method of Classical Scholars in trying to understand ancient literature is interpretation, based on the meaning of words in their context.

In this paper an attempt will be described to understand a piece of literature by different means and from a different aspect, namely by examining the frequency and content of certain words without regard to their context.
This examination of the vocabulary of the *Eclogues* does not aspire to replace the philological interpretation of these poems, on the contrary, it presupposes it, but it also supplements such interpretation; it may reveal certain features characteristic of the *Eclogues*, which would be overlooked otherwise.

A research of this sort requires plenty of data; to assemble these is rather tiresome and not too interesting. Data given by computer are usually fool-proof and relieve us of collecting words (1).

This is a research in words, but not all the words occurring in the *Eclogues* are examined; the method employed is selective. In every literary work there are words of two kinds : those having a *meaning* (2), *expressive words*, mainly nouns and verbs, and others needed for the syntactical connection of the various parts of speech, *structural words*, so to say, e.g. prepositions and conjunctions. Pronouns sometimes hold an intermediate position between these two groups, being either expressive or structural, or both. Many

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of the words of both groups recur frequently in a given piece of literature.

Not all expressive words have, however, equal expressional value and power. Some are characteristic (3) of a certain literary work. It stands to reason that the frequency of occurrence of such characteristic words bears some relation to their importance in this specific literary work : the more important such a word is, the more frequently it is expected to occur; but a high frequency of occurrence is not a condition for a word being important or characteristic.

By examining the frequency of occurrence of such words it is possible to find themes and motifs characteristic of the piece of literature in question. It has already be pointed out that such an examination can be effective only when coupled with philological interpretation; otherwise serious errors are bound to occur (4).

But not only the frequency of words and their meaning have to be considered; there are also certain grammatical forms which, independent of the meaning of words, may be characteristic of a certain style; these are the vocative and the imperative, the most immediate and expressive forms of the noun and the verb, respectively.

As this research relies on statistical data supplied by computer, a question of principle may be raised : What do statistical data - it may be argued - contribute to the understanding of literature, especially of poetry ?

I hope, this paper will give further evidence of the fact that cautious and selective evaluation of statistical data together with philological interpretation proves to be important to the Classical Scholar.

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In this paper, the frequency of occurrence in the *Eclogues* of selected words, their meaning and their relation to the various themes will be examined. Furthermore, imperative and vocative forms which are characteristic of the subjective and emotional presentation of these poems will be considered. Finally, an attempt will be made to classify the several *Eclogues* according to their themes. Proper Names, an important means of expression for emotions and associations, will remain outside the scope of this research (5).

With a view to clarify by means of the vocabulary the individuality of the *Eclogues* as a whole, they have been compared with Horace's *Odes* (6). Although there is much which separates the two sets of poems, some important traits are common to both : *First,* they are collections published by the authors themselves, so that the order of their units may be understood to express the intentions of the poet. *Second,* the poets were contemporaries, indeed friends, and they had similar poetic ideals. *Third,* both the *Eclogues* and the *Odes* are lyric poems charged with emotion, although in various degrees. *Fourth* - perhaps the most important point - both poets based their song on Greek poetry, but their poems are specific Roman creations, and *last* - both are unique phenomena, with no Roman predecessors or significant successors in antiquity.

In contrast to these similarities there are important differences : Vergil and Horace are unlike in temperament, in outlook, in literary genres of their writings; furthermore - and this is a serious difficulty for this research - the two collections are made up differently : While the smallest unit of the *Eclogues* to be considered is any one of the 10 poems, the smallest unit of the *Odes* are the single poems, arranged in four books; one *Eclogue* as a unit can, therefore, neither be compared with a single ode nor with one book of the *Odes.*

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The number of words in the *Odes* more than doubles that of the *Eclogues* (ab. *13,600* as compared with *5700*); to make a comparison possible, all data will be given in percentages.

TABLE 1 : VOCABULARY ACCORDING TO WORD CATEGORIES - ECL. & ODES

Category	Eclogues	Odes
Substantives	32	35
Verbs	21	20
Adjectives	10	17,5
Conjunctions coord.	7	8
Conjunctions subord.	2	2
Pronouns	14	7
Adverbs	8	6
Prepositions	4	3
Numerals	1	1
Interjections	1	0,5
TOTAL	100	100

TOTAL OF WORDS :   ECLOGUES :   *5,700*
                                 ODES :   *13,650*

TABLE 1 shows that in both works the percentages of Substantives, Verbs, Conjunctions, Adverbs, Prepositions and Numerals are fairly similar (7).
These categories make up *75* % of all words, but the remaining *25* % reveal some interesting differences : The *Odes* have a much larger percentage of adjectives (17,5 % compared with 10 % in the *Eclogues*), while the percentage of pronouns is much higher in the *Eclogues*. (14 % compared with 7 % in the *Odes*.)

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Remarkable, too, is the small percentage of subordinating conjunctions in both (2 %), compared with that of the coordinating conjunctions which is about four times as high (8).

It would be most interesting to know the relation of the language of either poet to the common usage of the poetical language of their time - for instance, whether Horace in the Odes has more adjectives or Vergil uses less than the other poets of their age - but there is no way of solving this problem.

TABLE 2 : SUBSTANTIVES - DISTRIBUTION ACCORDING TO DECLENSIONS
        AND CASES (% of all substantives)

Declension	Eclogues	Odes
-a	17	19
-o	29	30
conson.	35	37
-u	3	4
-e	1	2
Greek	12	6
Anomala	3	2
TOTAL	100	100

It appears that both sets of poems agree in most of the declensions, while the percentage of Greek inflexion in the Eclogues is twice that of the Odes (9).

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Case	Eclogues	Odes
Nominative	30	24
Genitive	8	14
Dative	5	6,5
Accusative	31	30
Vocative	8	3,5
Ablative	18	22
TOTAL	100	100

The interesting divergencies are the higher percentage of the genitive in the
Odes, which may be connected with the fact that the *Odes* have a much
higher share in adjectives : the genitive is mainly the case of the attribute;
it appears, therefore, that the *Odes* have more attributes than the *Eclogues*
(10). The most remarkable difference is the high prominence in the *Eclogues*
of the vocative, the most emotional case of all : *8* % of all noun-forms are
in the vocative (11), but *3,5* % only in the *Odes*.

TABLE 3 : MODES AND TENSES (% of all verbs)

Tense	Indicative		Imper.		Conjunct.		Partic.		Infin.		Total	
	Ecl.	Odes	Ecl.	Odes	Ecl.	Odes	Ecl.	Odes	Ecl.	Odes	Ecl.	Odes
Present	25	29	10,5	4	9,5	8	5	9	9,5	10	60	60
Imperf.	3	0,5	-	-	2,5	1,5	-	-	-	-	6	2
Futur. I	11	8,5	0,5	0,5	-	-	(0,1)	-	-	-	11,5	9
Perf.	12	10	-	-	1	0,5	6	13,5	1	1	20	25
Pluperf.	1	0,5	-	-	1	2	-	-	-	-	2	3
Futur. II	0,5	1	-	-	-	-	-	-	-	-	1	1
TOTAUX (approx.)	53	50	11	4	14	12	11	23	11	11	100	100

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The striking differences in modes and tenses are - as shown in *TABLE 3* -
the high percentage of imperatives in the *Eclogues* (10,5 % compared with
4 % in the *Odes*) and the high percentage of participles in the *Odes* (about
23 % of all verbal forms) ranging second after the indicative, while in the
Eclogues conjunctive, imperative, participles and infinitive are about equally
distributed.

TABLE 4 : PRONOUNS

Pronoun	Eclogues	Odes
Personal	32	35
Possessive	12	9
Reflexive	2	1
Poss.-Reflex.	1,5	1
Demonstrative	25	11
Relative	8	20
Interrogative	6	11
Indefinite	13,5	12
TOTAL	100	100

In the *Eclogues* 25 % of all pronouns are demonstratives, but in the *Odes*
only 11 %; the second-largest group are the relative pronouns (20 % as com-
pared with 8 % in the *Eclogues*). The personal pronouns have about the same
frequency in both sets of poems, but their distribution is different : In the
Eclogues ego (111 occurrences) is the most frequent pronoun - it comes
second after the most frequent word : *et* (140), while in the *Odes tu* (202)
is the most frequent pronoun, coming third after *et* and *-que,* and *ego* (113)
is eighth only; in the *Eclogues tu* (107) is third (12).

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The most frequent among the demonstrative pronouns in the *Eclogues* as well as in the *Odes* is *hic*, whereas forms of *is* occur only twice each in both (13). It would appear that the frequent use of demonstrative pronouns and especially of *hic,* the pronoun associated with the first person, stresses the lively presentation and the emotional style of the *Eclogues.*

TABLE 5 : MOST FREQUENT WORDS (14) IN ECLOGUES, ODES, ELEGIES
(TIBULLUS, PROPERCE).

Serial Number	Vergil Eclogues			Horace Odes		Tibullus Elegies		Properce Elegies	
1	carmen (15)	T,P		deus	V	puella	P	puella	T
2	dico	H		dico	V	tener		amor	T,V
3	video	H		puer	V	coma		os(ossis)	
4	venio			do		fores		formosus	V
5	duco	H		multus		amor	P,V	durus	T
6	amor		T,P	domus	V	cano	P,V	mollis	
7	puer	H		dies		pes		carmen	T,V
8	silva			fero	V	durus	P	fleo	T
9	incipio			magnus	V	herba	V	amo	
10	cano		T,P	dulcis		precor		lectus	
11	magnus	H		mare		fleo	P	aqua	T
12	facio			audio		sinus		eo	
13	pecus			duco	V	aqua	P	nox	
14	canto			pono		sto		cano	T,V
15	deus	H		video	V	turba		malus	
16	formosus		P	bonus		parco		verbum	
17	domus	H		gratus		sacer		caput	
18	fero	H		terra		iuvenis		os(oris)	
19	herba		T	pater		carmen	P,V	fatum	
20	mons			virgo		manus		equus	

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It can be seen that *8* out of a total of 20 words are common to the *Eclogues* and to the *Odes*; on the other hand, the individuality of Horace's language in his lyric poems is shown by the fact that not one of these words is found among the 20 most frequent words of either Tibullus or Properce. 7 words are common to the elegic poets, while 4 each are common to the *Eclogues* and to the *Elegies* of either poet.

This result seems to justify our comparison of the *Eclogues* with the *Odes*, but it also indicates a connection between vocabulary and literary genre.

The next step will be to find - as best we can - which themes may be suggested to the listener by some of these most frequent words (16). The following themes can be discerned (17) :

TABLE 6 : (a) SONG. (b) LOVE (c) NATURE-BUCOLIC LIFE (d) MOTION

Theme	Eclogues		Odes		Tibullus		Properce (18)	
SONG	*carmen*	(1)	....		*carmen*	(19)	*carmen*	(7)
	dico	(2)	*dico*	(2)	....		....	
	incipio	(9)	....		....		....	
	cano	(10)	....		*cano*	(6)	*cano*	(14)
	canto	(14)	....		....		....	
LOVE	*amor*	(6)	....		*amor*	(5)	*amor*	(2)
	puer	(7)	*puer*	(3)	....		....	
	formosus	(16)	....		....		*formosus*	(4)
	....		*dulcis*	(10)	....		....	
	....		*gratus*	(17)	....		....	
	....		....		*puella*	(1)	*puella*	(1)
	....		....		*tener*	(2)	....	
	....		....		*durus*	(8)	*durus*	(5)
	....		....		*precor*	(10)	....	
	....		....		*fleo*	(11)	*fleo*	(8)
	....		....		*iuvenis*	(18)	....	
	....		....		*parco*	(16)	....	

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Theme	Eclogues		Odes		Tibullus		Properce (18)	
	....		....		fores	(4)	....	
	....		....		coma	(3)	....	
	....		....		pes	(7)	....	
	....		....		sinus	(12)	....	
	....		....		manus	(20)	....	
	....		....		....		nox	(13)
	....		....		....		mollis	(6)
	....		....		....		amo	(9)
	....		....		....		lectus	(10)
	....		....		....		malus	(15)
	....		....		....		os(ossis)	(3)
	....		....		....		caput	(17)
	....		....		....		os(oris)	(18)
NATURE-BUCOLIC LIFE	silva	(8)	....		aqua	(13)	aqua	(11)
	pecus	(13)	....		....		....	
	herba	(19)	....		....		....	
	mons	(20)	....		....		....	
MOTION	venio	(4)	....		....		....	
	duco	(5)	duco	(13)	....		....	
	fero	(18)	fero	(8)	....		....	
	....		pono	(14)	....		....	
	....		....		sto	(14)	....	
	....		....		....		eo	(12)

TABLE 7 : DISTRIBUTION OF MOST FREQUENT WORDS ACCORDING
TO THEMES

Theme	Eclogues	Odes	Tibullus	Properce
SONG	5	1	2	2
LOVE	3	3	13	13
NATURE-BUCOLIC LIFE	4	-	1	1
MOTION	3	3	1	1
NEUTRAL OR NOT DEFINED	5	13	3	3
TOTAL	20	20	20	20

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TABLE 8 : MOST FREQUENT WORDS ACCORDING TO CATEGORIES

Gramm. Category	Eclogues	Odes	Tibullus	Properce
Substantives	9	8	12	12
Adjectives	2	5	3	4
Verbs	9	7	5	4
TOTAL	20	20	20	20

TABLES 6 - 8 give some information on the differences between the two
sets of poems as seen through their vocabulary : According to this crite-
rion the main theme in the *Eclogues* is SONG (19), the second is LOVE,
while in Tibullus as well as in Properce the main theme is LOVE; this is
no new result, but it is gratifying to see it confirmed by examination of
the vocabulary. The theme SONG seems to be less pronounced in Horace
than in the elegic poets. It is interesting that of the rich vocabulary referr-
ing to love in Tibullus and in Properce no more than three words are
common to both : *puella,* their most frequent word, *durus* and *fleo*; both
of them are more frequent in Properce than in Tibullus. All other words
indicate that there were large differences between them in temperament
(20), attitude and style.

Besides the theme SONG there is another theme characteristic of the
Eclogues : BUCOLIC LIFE. It is perhaps surprising that the vocabulary of
the most frequent words shows no more than 4 words, not even of the
highest frequency, indicating this theme : *silva, pecus, herba, mons*. It
should, however, be borne in mind that these themes intermingle, that
indeed in the *Eclogues* most LOVE and SONG are BUCOLIC. But another
fact should also be remembered : not only words recurring frequently may

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be characteristic of content, style and presentation of a literary work, but also - to no small extent - words which occur *once only*. The Proper Names and their important function in the *Eclogues* must also not be overlooked (21).

TABLE 8 shows that at least in the sample given substantives and verbs have the main share in the *Eclogues*, while there are comparatively few adjectives, which tallies rather nicely with the results shown previously (22). The share of adjectives is largest in the *Odes* - not surprising again - while there is a majority of substantives and less verbs in the elegic poets, who in this respect, too, resemble each other very much. Except for their different frequency of adjectives, the *Eclogues* and the *Odes* are again shown to be closely related, although they are not so close as the elegic poets, whose distance from both the *Eclogues* and the *Odes* is considerable.

Having thus established the relation between the most frequent words and the themes, we shall now try to apply these results to an attempt to express in these terms the individuality of the several *Eclogues* as well as the individuality of the set as a whole.

TABLE 9 shows some features characteristic of the single *Eclogues* (23).

TABLE 9 : STRUCTURE AND MAIN THEMES OF THE ECLOGUES

Eclogue	Structure	Main Theme	Remarks
1	Dialogue	Roman Reality opposed to Bucolic Tranquillity	Programmatic poem
2	Monologue, preceded by preface	Lament of spurned lover	The hero - a tragic character

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Eclogue	Structure	Main theme	Remarks
3	Alternating song	Bucolic themes, including Vergil's poetry	Contest in song; two contestants and referee
4	Monologue, preceded by preface	Great Hopes for Humanity : Peace	Preface: "This is more sublime poetry"
5	Alternating song	Daphnis the shepherd; death and apotheosis	Self-quotation; Ecl. 2 & 3 mentioned
6	Monologue, preceded by preface	The attitude of the bucolic poet : Tragic Love	Emotional narration of myths
7	Alternating song, preceded by preface	Bucolic themes	Contest in song; two contestants and referee
8	Two songs, preceded by preface	Bucolic themes; Love - Theocritean style	Adaptation of Theocritus' Cyclops, Pharmakeutria
9	Dialogue	Bucolic song opposed to Roman Reality	Samples of translations-adaptations from Theocritus
10	Two monologues	Love as theme of song (Bucolic song opposed to Elegy)	Poetic discussion with Gallus

The facts shown in *TABLE 9* are well known : it has been pointed out (24), that *Eclogues* with uneven numbers are dialogues, while those with even numbers are monologues. This sounds simple and clear, because there is a marked difference between the poems of each group, but - the poems within each group also differ from each other. The "monologic" poems are not all monologues : *2, 4* and *6* are preceded by prefaces; to class *6* as monologue should be rather difficult : The preface contains the credo of the bucolic poet in the

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words of Callimachus; in a second preface Silenus is introduced had his song is presented in emotional style : strange, unhappy love-affairs, well-known myths narrated in a bucolic vein. *8* is composed of two poems, both adapted from Theocritus; the motif common to both is LOVE. Here, too, is a preface, addressed to Pollio and containing also a description of the external situation of the shepherds singing the songs. This is the only *Eclogue* to have refrains. Finally, *10* is a unique poem : composed of two monologues, one spoken by Vergil, the other by Gallus, it stands alone in the collection with regard to content, structure and speaking persons.

The *Eclogues* bearing uneven numbers are no less different from one another : *1, 5* and *9* are dialogues between two partners, whereas *3* and *7* are contests in singing between two participants, while a third one acts as referee. Yet there is another - it seems to me - essential difference between *1, 5, 9* on the one hand and *3, 7* on the other : An air of scorn and quarrel between the contestants prevails in *3, 7*, but there is mutual esteem and respect between the interlocutors in *1, 5, 9.*

It seems, therefore, that an external classification cannot do justice to Vergil's intentions. We shall now see what can be contributed in this respect by the examination of the vocabulary.

TABLE 10 : CLASSIFICATION OF ECLOGUES ACCORDING TO SOME SYNTACTICAL
DATA (Decreasing frequency)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Pronouns (Dem.-poss., 1.-2.ps.)	Imper.- Vocative	Interj.	Abstracta	Greek Words	Total	Proper Names Roman	Greek Inflex.
8	8	2	4	2	8	1	5
3	3	3	1	5	6	9	8
2	7	1,9,10	7	7,8	5,10	10	2,3,7
1,10	9	6,8	10	4	3	4	10
9	1	5	2,8	6	7	3	6
6	5	4	5,6,9	3	2	6	9
7	4	7	3	1,10	9	8	4
5	6			9	1	7	1
4	2				4	5	
	10					2	

REMARK : The numbers refer to the single *Eclogues.*

From *TABLE 10* some interesting facts emerge which are consistent with the
results of interpretation :

1) The frequency of pronouns connected with the first and second persons
   may serve as an indicator of personal, immediate, emotional, subject-
   centered presentation. Column (1) shows that *8* and *3* are first in this
   respect, while *4* is last. It should be noted that *1* and *9* are close to each
   other, a fact to be observed in all other columns, too, except (4) (abs-
   tract words), where *1* is second, but *9* last.

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2) As mentioned above (25), vocative and imperative forms point to emotional style : Again *8* and *3* are first, but *10*, the poem containing the discussion between the bucolic and the elegic poet, is last.

3) *2,* generally considered as the earliest *Eclogue* Vergil composed, has the highest percentage of interjections - *3* is second, while *4* and *7* are last. *2* also has the highest share of Greek words - which is in accordance with the assumption that it is the earliest poem in the collection -, whereas *1, 9, 10* have the lowest percentage of Greek words and, correspondingly, as seen in column (7), the highest share in Roman Proper Names. *2* has no Roman Proper Name at all, alone of all *Eclogues.*

4) Proper Names are most frequent in *8* (26); second comes *6,* the emotional interpretation of various myths of unhappy love, and *4* is last.

The next Table shows an attempt to classify the several *Eclogues* according to the distribution of themes in them. About *870 key-words* (27) have been selected on the ground that they indicate definitely one of the themes in the collection. Here are a few examples to explain this selection :

SONG : *carmen, cano, canto; Musa.*
LOVE : *amo, amor; Venus.*
BUCOLIC LIFE : *pastor, pecus; Tityrus.*
ROME AND REALITY : *bellum, castra, libertas; Parthi.*

Not all these key-words selected are frequently used in the *Eclogues*; in fact, a considerable number of them occur in these poems not more than once. The total of the key-words selected amounts to *15* % of all words, or *24* %

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of the total of nouns and verbs combined. Proper Names have been inclu-
ded. I have now attempted, on the base of these key-words, to express
some relation between these four themes in everyone of the *Eclogues.* For
convenience these relations are presented in percentages, but no accuracy
can be achieved here (28).

TABLE 11 : DISTRIBUTION OF THEMES IN THE ECLOGUES

Eclogue 1		Eclogue 2		Eclogue 3	
Rome & Reality	46	Bucolic Life	55	Bucolic Life	46
Bucolic Life	40	Love	30	Love	27
Love	8	Song	12	Song	25
Song	6	Rome & Reality	3	Rome & Reality	2

Eclogue 4		Eclogue 5		Eclogue 6	
Song	36	Bucolic Life	53	Song	45
Rome & Reality	34	Song	23	Bucolic Life	32
Bucolic Life	28	Love	18	Love	12
Love	2	Rome & Reality	6	Rome & Reality	11

Eclogue 7		Eclogue 8		Eclogue 9	
Bucolic Life	52	Song	50	Song	35
Love	30	Bucolic Life	28	Bucolic Life	35
Song	18	Love	20	Rome & Reality	25
Rome & Reality	-	Rome & Reality	2	Love	5

Eclogue 10	
Bucolic Life	33
Song	30
Love	28
Rome & Reality	9

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TABLE 12 : THEMES IN THE ECLOGUES ACCORDING TO EXTENT OF THEME

MAIN THEME			SECOND THEME
ROME & REALITY	:	1, 4(?)	4(?)
BUCOLIC LIFE	:	2, 3, 5, 7, 10, 9(?)	1, 6, 8, 9(?)
SONG	:	4(?), 6, 8, 9(?)	4(?), 5, 10, 9(?)
LOVE	:	- - - - - - -	2, 3, 7

THIRD THEME			FOURTH THEME
ROME & REALITY	:	9	2, 3, 5, 6, 7, 8, 10
BUCOLIC LIFE	:	4	- - - - - - -
SONG	:	2, 3, 7	1
LOVE	:	1, 5, 6, 8, 10	4, 9

TABLES 11 and *12* reveal among other facts :

1) ROME & REALITY is the main theme in *1,* perhaps also in *4;* it is second (perhaps first) in *4,* a very strong third in *9,* and fourth in no less than seven *Eclogues* and is absent from one, namely *7.* Despite being the fourth theme it is rather pronounced in *6* and in *10.* From the fact that ROME & REALITY is the main theme in the poem which stands first in the collection, it must be understood that this theme was indeed of utmost importance to the poet.

2) BUCOLIC LIFE is the main theme in at least five, perhaps six *Eclogues, 2, 3, 5, 7, 10, 9* (?), the second theme in *1, 6, 8, 9* (?), a strong third in *4,* but it is never fourth. This, then, is a confirmation of its

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being the most important theme in the book of *Eclogues*.

3)	SONG is the main theme in *6, 8, 9,* perhaps in *4,* second in *5, 10, 4*(?), third in *2, 3, 7* and last in *1*.

4)	LOVE is never the main theme, it is second in *2, 3, 7* (the Theocritean *Eclogues*), a strong third in *5, 8, 10* and in *6, 1*; it is the last theme in *4, 9*.

This classification arrived at independently of interpretation, but consistent with it, seems to confirm that the method adopted in the present research is indeed effective.

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NOTES

(1)   The present research makes much use of computerized data - in
       fact, it could not have been written without them. R. Lecrompe's
       Virgile, Bucoliques, Index verborum, Relevés statistiques (Olms,
       Hildesheim, 1970) was most thoroughly used, but had to be supple-
       mented by much counting.

(2)   The term *meaning* as understood by me is not limited to lexical
       notions, but includes emotional and associative factors as well.
       For another classification see L. DELATTE, *Key-words and Poetic
       Themes in Propertius and Tibullus,* in *Revue de l'Organisation in-
       ternationale pour l'Etude des Langues anciennes par Ordinateur,*
       n° 3, 1967, 31 ff.

(3)   To be sure, there are also certain words preferred by individual
       authors and frequently used without being characteristic for the
       literary work they occur in, but we shall not deal with them here.

(4)   Here are two examples : *carmen* occurs in the *Eclogues* 49 times;
       it seems to be connected only with song and poetry, but in *Ecl. 8*
       carmina appears 13 times in the meaning 'love-charms'. With a
       frequency of *36,* however, *carmen* referring to poetry is still the
       most frequent expressive word in the *Eclogues. incipio* (frequency
       21) is in the *Eclogues* connected 15 times with poetry. Failure to
       consider these facts may lead to false results.

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(5)   This subject is dealt with by the author in a paper to be published by Classical World (vol. 1973-74) : *A Study of Proper Names in Vergil's Eclogues*. It has been found that *8* % of all words = *19* % of all nouns in these poems are Proper Names. The first word in the Book of *Eclogues* is a name in the vocative : *Tityre*, which arouses in the listener various emotions and associations : Bucolic Life, Tranquillity, Theocritus and his poetry. The vocative causes suspense in the listener and calls for his emotional participation. Most of the names in the *Eclogues* are Greek, actually the strongest Greek element in the poems. Furthermore, their sound is mostly agreeable to the ear : about one quarter of all names in the *Eclogues* contain *-y-*, for Romans the most euphonic vowel. Cf. Cicero, *Orator* 160, Quintilian, *Inst.or.* 12.102.

(6)   The data have been prepared for me by Laboratoire d'Analyse statistique des Langues anciennes, and I should like to express my thanks to Prof. L. DELATTE for this contribution to the present research.

(7)   It would be very tempting indeed to conclude from these similarities that they represent traits characteristic of the poetic language of the Augustan age, but such conclusions will have to wait until most of the writings of that age will have been analyzed by computer.

(8)   It would be rash to conclude from these figures alone, that there is much more parataxis than hypotaxis in both sets of poems, but a comparison of percentages of verbs occurring in main and in dependent clauses, respectively, strengthens this assumption :

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Verbal forms in main clauses	: *Eclogues :*	58	*Odes :*	42
Verbal forms in depend. clauses	: *Eclogues :*	25	*Odes :*	26
Other verbal forms	: *Eclogues :*	17	*Odes :*	32

It appears that there are much more main clauses in the *Eclogues* than in the *Odes,* while the percentage of dependent clauses is about equal; the *Odes* have much more other verbal forms, especially participles, but also infinitives.

(9)   In the *Eclogues* no Greek words except Proper Names have Greek inflexion, therefore these data refer to Proper Names only. The genitive of names in *-is* (e.g. *Amaryllis, Daphnis*) always terminates in the Latin *-idis,* never in the Greek *-idos,* while the accusative has Greek forms only : *Daphnin, Amaryllida.* It appears that Vergil preferred the euphonic forms, no matter whether they were Greek or Roman. Cf. my *Study of Proper Names.*

(10) To this may be added the rather high percentage of participles; see below, *TABLE 3*; a certain part of these are used as attributes.

(11) No less than *21* % of all Proper Names in the *Eclogues* are in the vocative case. Cf. *Study of Proper Names.*

(12) The conclusion is at hand that the *Eclogues* are more centred on the first person, while in the *Odes* the second person is more important. About the first person in the *Eclogues* more will be said in a paper by the author to be published in vol. 15 (1973) of *Studii Clasice,* Bucarest : *"Die Stimme Vergils in seinen Eklogen".*

(13) *Id :* Ecl.3.35, 9.37.   *eius :* c.3.11.18, 4.8.18.

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(14)   For the *Eclogues* LECROMPE, *Op. cit.,* has been used, for the
        *Odes Liste de fréquence en ordre décroissant des mots des quatre
        livres d'Horace,* prepared by the team of Laboratoire d'Analyse
        statistique des Langues anciennes and published in *Revue de
        l'Organisation internationale pour l'Etude des Langues anciennes
        par Ordinateur,* n° 4, 1968, pp. 12-89, for the *Elegies* of Tibul-
        lus and Properce Delatte's *Key-words.* See note 2. The word-list
        are given there on p. 36. The selection of just 20 words is rather
        arbitrary, but it should be borne in mind that this is only a
        sample. The list contains only substantives, adjectives and verbs,
        but no Proper Names.

(15)   A letter near one of the words means that this word occurs
        among the most frequent words in another work.

(16)   Although I agree in principle with the distinction pointed out
        by DELATTE, *l.c.,* 33-34, I should like to add that the fact
        that some of these words are frequent in a certain literary work,
        does indeed confirm their importance, even if they are every-day
        words; moreover, it is one of the miracles of poetry that such
        words sometimes in the context of a poem cease to be every-day
        words and suddenly become poetical.

(17)   The number after the word is the serial number (1-20).

(18)   Cf. L. DELATTE, *Op. cit.,* 45 ff about the motifs DEATH and
        LOVE in Properce, 51 ff, about *aqua* in Properce.

(19)   See p. 17 for more detailed results.

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(20)   Cf. DELATTE, *Op. cit.,* p. 44.

(21)   See my *Study of Proper Names.*

(22)   See *TABLE 1.*

(23)   This selection is, of course, subjective.

(24)   Cf. K. BUCHNER, *Pauly-Wissowa,* RE 2. Reihe, 15 hbd, s.v.
        P. Vergilius Maro, col. 1256/7.

(25)   P. 2.

(26)   This is due to the fact that *Daphnis* recurs in the refrain.

(27)   I propose to use the term *key-word* for words characteristic of
        a piece of literature, irrespective of their frequency of occurrence.

(28)   It may sound peculiar that the distribution of themes in a poem
        should be expressed in percentages, but this seems the most effi-
        cient way of presentation; this does not detract from the beauty
        of the poem, on the contrary, it is a complement to philological
        interpretation, which is the necessary base for such analyses.

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