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# **A Psycholinguistic Investigation of Old English Poetic Composition**

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## ABSTRACT

The conventional hypothesis of Old English poetic composition assumed that poets used a limited number of formulae which were tacked together to generate the texts now extant. Old English poetic composition is a combination of natural 'spreading activation' and acquired poetic skill, with one constantly reinforcing the other. This study tests whether the spreading activation theory is correct by investigation into the formulaic properties of selected Old English texts, not including *Beowulf*, and compares these texts with *Beowulf* to see if that poem has any special non-formulaic qualities. High rates of collocation may be predictable in the abstract, but need to be established on a quantitative basis. Scholars have widely maintained that *Beowulf* has special qualities which give rise to the expectation that its language is inherently non-formulaic; that the *Beowulf* poet was a more original craftsman than the composers of other poems. Some scholars, myself included, have an intuitive feeling that the composition of *Beowulf* is special and superior. The proximity surveys completed for this study do not prove the hypothesis that Old English poetry was composed by a combination of natural spreading activation plus learned poetic routines. The expected outcome of patterned recurrences has not been demonstrated. The surveys suggest that poets actively suppressed the tendency for a given word to associate on to other alliterating words. This tendency is especially marked in *Beowulf* as poet allows one word to lead to another over a somewhat longer word-span, which results in the poet being freed to use the same basic collocation more frequently. *Beowulf* is shown to demonstrate a distinct and impressive lack of formulism.

## **RESOURCES AND ACKNOWLEDGEMENTS**

The mixture of sources used include Old English poetic texts and technical literature on poetic composition. I also consulted analytical and critical commentaries on the poetry and poets' style, and the concordance of Old English. Much of the technical literature on Old English poetic composition is printed in international journals; access to these was made possible through library interloans. I acknowledge the assistance of Massey University Extramural Library Service. Consultation of the concordance of Old English allowed me to make a comparison between the recurrent collocations disclosed against the total picture derived from all extant texts. Hence this put in train a test for one aspect of the working hypothesis.

The texts were all sourced from Georgetown University's Labyrinth Library (see Appendix). The study would not have been feasible before the invention of the personal computer, and the 'word-search' facility to locate all instances of each word. I acknowledge my husband Richard for assistance with technical aspects of data-processing and computer functions.

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## **HYPOTHESIS**

Many previous treatments of Old English poetic composition have proceeded upon the assumption that the poets composed by using a limited number of formulae. According to this conventional hypothesis, such formulae were tacked together to generate the texts now extant. Although such a hypothesis is obviously excessively mechanistic and reductive, when compared with actual Old English textuality, scholars have encountered difficulties in refining it. I hypothesise that the patterns of lexical and phonological recurrence to be found in Old English poetic texts may be found consistent with the expected outcome between two processes. The first is the involuntary and unconscious process termed 'spreading activation' by which all speakers generate utterances. The second process is the poets' trained acquisition of a repertoire of poetic diction and prosodic devices, notably alliteration.

Old English poetic composition is a combination of natural spreading activation and acquired poetic skill, with one reinforcing the other all the time. By testing this belief, the expected outcome would be patterned recurrences. One objective of the study is to test whether the spreading activation theory is correct. This is based on a study of the formulaic properties of selected Old English texts not including *Beowulf*. A second aim is to compare these texts with *Beowulf* to see if *Beowulf* has any special non-formulaic qualities. High rates of collocation may be predictable in the abstract, but need to be established on a quantitative basis.

There have been no other tests undertaken on the composition of Old English verse similar to these detailed in this thesis; the analysis undertaken has covered ground hitherto unexplored by commentators. This may perhaps be due in part to a noticeable reduction in interest in the composition of Old English verse. It has become a less fashionable topic in the last couple of decades, with little new research worldwide.

## **LITERATURE REVIEW**

The literature review of the oral-formulaic hypothesis covers the main players and sub-theories, as the bibliography is voluminous.

### **THE THEORY PIONEERS: PARRY AND LORD**

Literary historians had long known that formulaic repetitions occur in Old English poetry, but the theory that vast reserves of formulae, developed over a long period of time, were used by unlettered singers was developed and progressed by two men. These were Milman Parry and his former pupil Professor Albert Lord of Harvard University. Lord aided Parry in demonstrating that the characteristic feature of all orally composed poetry is its formulaic character. The research was done firstly working with the language of Homer and then among Muslim singers, after field work in Yugoslavia. The formulaic theory had its roots in Parry's study of Homeric verse.

The so-called Serbo-Croatian epic provided much of Lord's raw material, as Parry and Lord's investigations were based on a Yugoslavian 'guslar' as the role model of an oral poet. These scholars thought that an Anglo-Saxon poet was like a 'guslar', an illiterate male who undertook extensive training to compose songs in performance. Between 1933 and 1935, they studied the production of the oral epic style in Yugoslavia and collected over 12,000 texts. Having shown the totally formulaic nature of orally composed poetry, Parry and Lord went on to show that the recurrence in a poem of an appreciable number of formulae brands that poem as oral, as likewise a lack of repetition delineates a poem as composed in a lettered tradition (Magoun 1968:84).

Parry explains the birth of a formula thus:

... if the phrase is so good poetically and so useful metrically that it becomes ... the one best way to express a certain idea in a given length of verse, and as such is passed on from one generation of poets to another, it has won a place for itself in the oral diction as a formula (Magoun 1968:86).

If a phrase is unsuitable, it lives but a short time and is soon forgotten. Over time, the required amount of phrases is built up and the poet has a stock of formulae on which to draw in order to compose his poems.

Lord continued this work after Parry's death, developing and modifying the initial theory. Lord's book *The Singer of Tales*, written in 1960, shifts some of Parry's original emphasis. That situation arose as a result of the comparison with a living tradition. Parry had revealed a rigidly formulaic style in ancient Greek epics, which disturbed many admirers of that poetry. The unsettling effect arose as the researcher uncovered a tense functionalism that equated the relationship between language and metre as nothing short of cause and effect. Lord simplified that by describing the pre-literate poetic medium as a language set apart from poetic metre, blended and slowly assimilated naturally by ear.

A poet, Lord maintained, does not memorise formulae any more than a child memorises language. He contended that a formula was part of a "special grammar within the grammar of the language, necessitated by the versification" (Magoun 1968:169). Assuming the poet to be a singer, Lord said the performer would have had to acquire basic patterns behind the formulaic systems. The formula is helpful to listeners because it eases comprehension and satisfies an innate desire for the familiar. A poet learns a poetic language, parallel to his spoken one but different in that it has the dimension of metre (Lawrence 1966:170).

#### THE SECOND WAVE: MAGOUN

Repetitive diction and Parry's theory of the oral-formulaic composition of Homeric verse were first applied outside classical scholarship by Francis P. Magoun, Junior. This scholar applied the theory to Old English verse. The unlettered singer, Magoun states, calls upon a vast store of formulae which are the product of many generations of poets (1968:83). Lettered poetry is never formulaic, yet oral poetry is completely so. The singer does not memorise text, as there is none; rather he learns themes, plots, names, and formulae (Magoun 1968:84). A poem's length is dependent on the time an audience gives to listen, and from this the analogy with musical improvisation is apparent.

The ancient Germanic singers were unlettered, and so their poetry was oral. Since the poetry was oral, it must *ipso facto* have been traditional and formulaic. It was almost surely based on an instrument's rhythmic beat and consisted of a few short verses. It is a natural impulse to assume that poets composed as modern poets do — in writing. This follows because we have the preserved poems in literary form. But, since formulaic poetry is deemed to be purely oral in

origin, it is possible to test any individual poem to determine whether the recorded text derives from the oral or the lettered tradition.

Magoun analysed the first 50 verses, or 25 typographical lines, of *Beowulf*. These were chosen as they deal with specialised themes not found elsewhere in poetry, for which one would think the poet would need to create his own language (Magoun 1968:88). Magoun uses Parry's definition of a formula as 'a group of words which is regularly employed under the same metrical conditions to express a given essential idea'. Of the first 50 verses, only 13 are not matched elsewhere in Old English poetry, he finds. By comparison, in the corpus of Old English poetry of approximately 30,000 lines, some 70 percent of the text is found elsewhere. Verses in *Beowulf* which are simply repeated formulae, that occur exactly the same elsewhere, number 16. These are patently useful formulae which fit easily into this passage from *Beowulf* and to singers of poems with differing themes. Examples are italicised below.

Hwæt! We Gardena     *in geardagum,*  
þeodcyninga,     þrym gefrunon,  
*hu ða æþelingas     ellen fremedon.*  
Oft Scyld Scefing     *sceapena þreatum,*  
5     *monegum mægþum,     meodosetla ofteah,*  
egsode eorlas.     Syððan ærest wearð  
feasceaft funden,     he þæs frofre gebad,  
*weox under wolcnum,     weorðmyndum þah,*  
oðþæt him æghwylc     þara ymbsittendra  
10     ofer hronrade     *hyran scolde,*  
gomban gyldan.     *þæt wæs god cyning!*

Some of these types of formulae are more than repetition; they form part of larger formulaic systems used to express the same idea (Magoun 1968:89). Verse 0001b 'in geardagum' is such a one. It is one part of a system 'on x-dagum', where 'x' is replaced by a variety of lexemes such as 'eald' and 'fyrn'. With substitution, the formula remains unaltered in letter and meaning. Verse 0011b 'þæt wæs god cyning!' is an emphatic punctuation used to halt the narrative briefly. It is used twice in *Beowulf* and elsewhere with adjectives replacing 'god' to give a sense of disapprobation. 'Wæs' can also be varied with 'is'. There are to be found many compounds with 'cyning', as in verse 0002a 'þeodcyninga', where the first element emphasises the importance of, defines, or

locates, the king. Other examples are 'wuldurcyninge' (King of Glory) at line 2795 and 'Frescyninge' (King of the Frisians) at line 2503. Alliteration seems to be the reason the first elements were chosen, as they add little to the meaning.

A kenning is formulaic, but it is also part of a formulaic system. The kenning 'ofer hronrade' at line 0010 can be varied as 'ofer swan-rade', as in *Beowulf* and *Elene*, or 'on swanrade' as in *Juliana*. The poet is using different alliterations to express the same fundamental idea. Magoun believed that most of Old English narrative verse was formulaic and oral, and he asserted a rigid dichotomy between oral and written styles.

#### FOLLOWERS OF THE ORAL-FORMULAIC THEORY

Magoun had several followers of a strictly oral-formulaic theory. These included Frederic Cassidy, who wrote an article on oral-formulism in the 1960s and Donald Fry, who put forward his thoughts mainly in the late 1970s. David Crowne was an earlier adherent, writing in 1960.

One of the first scholars to examine the use of formulae, before Magoun's work, was Robert P. Creed. When composing, a poet was guided by the sound and sense of verses belonging to a 'system', Creed stated in 1959. As approximately one verse in five is repeated intact elsewhere in *Beowulf*, the singer was certain to have employed a system of formulae when composing (Creed 1959:445). Creed takes eight verses of the poem and illustrates his theory that the making of any Anglo-Saxon poem was a process of choosing which formulae to use, not which individual words to use. Here are the eight verses:

0356 Hwearf þa hrædlice      þær Hroðgar sæt  
eald ond anhar      mid his eorla gedriht  
eode ellenrof,      þæt he for eaxlum gestod  
Deniga frean      cupe he duguðe þeaw.

The formula 'hwearf þa' at line 0356 is demonstrable as it occurs at the beginning of lines 1188, 1210 and 1573. The second verse in that line is of the type 'þær x sæt', where substitution is used for alliterative purposes, as at line 1190: 'þær se goda sæt'. Line 0356 is made up of three formulae, Creed believes. They are 'hwearf þa', 'hrædlice', and 'þær x sæt'. The second formula was selected by the poet in order to name Hroðgar with alliteration in the second

verse. As the comparison with line 1188 proves, line 0356 was shaped by the association in the poet's mind of these three formulae. Line 1188 'Hwearf þa bi bence / þær hyre byre wæron' is of the same pattern as this line.

Creed undertakes the interesting experiment of attempting to re-write those eight verses from *Beowulf* by using formulae found in the poem. For line 0356: 'Hwearf þa hrædlice / þær Hroðgar sæt', he invents 'Eode þa ofostlice / þær se ealdor sæt'. By using the pattern, or system, of formulae, Creed demonstrates that the poet draws on a stock of formulae.

That a formula is a mnemonic unit which enables a singer to compose songs is the view of Crowne. The formula also enables a singer to recite those songs without recourse to memorisation, or having the ability to write them down. This is very close to Magoun's thinking. Formulae were restricted by metrical needs, and were not at all fluid in form; indeed, regular use and exact repetition characterised a formula (Crowne 1960:363). Theme and formula each possessed separate identities, and did not always need to coincide, Crowne states.

A formula may be quite flexible, Cassidy believes. The repeated words which compose it need not be identical in every detail. Unstressed morphemes may be varied without destroying the formula, and words can also be reversed. If more poems had survived the ravages of time, Cassidy conjectures, apparently unique verses would no doubt turn out to be formulaic. Old English verse is based on 25 syntactic patterns, which he classes as noun-centred, verb-centred, and several other categories. Three very common noun-centred frames account for over 40 percent of the verses in *Beowulf*. Formulae were formed through repeated use of those features which prove effective in singing.

All verbal formulae were referable to archetypal syntactic frames: the verbal details could change, not only unstressed elements but even stressed ones as in formulaic systems, within the steadying patterns of the syntax (Cassidy 1965:83).

Cassidy affirms that there is the fundamental structure of the poetic line with its two alliteratively linked halves. Each half is built on a number of established stress patterns, although the syntactic frame did permit the 'scop' to choose synonyms for alliteration and to adjust verse type. The 'scop' had to work within the restrictions of his medium, as does any poet, but these were less confining than the formulaic idea seems to suggest.

The constitution of a formula interests Donald Fry. He states that it may be one long compound word as well as group of words, and that these words are related only in form, not in content. The poets were anonymous, so any comparison is blatantly impossible. He concludes that Old English poetry is too complex for statistical formulaic analysis as it is now practised, and that Parry's definition does not fit the evidence.

Aided by Professor Creed, in the 1970s John Miles Foley devised a method of scansion which enabled the scholars to account for the metrical nature of each line in *Beowulf*. By using this scansion, Foley noted that a poet would compose whole lines with verse, or half-line, substitution. Those whole lines are specific manifestations of an underlying metrical idea (Foley 1976:211). He uses computer analysis to show "a single rhythmic template which generates 94% of all lines" (Foley 1976:207). From a huge number of possible configurations, the Anglo-Saxon poet chose a single, specific metrical idea. It is this one rhythmic template which is the bedrock of a poem.

Previous exponents of the oral-formulaic theory did not go further than regarding oral composition as based on a verbal formula, Foley states. The formula is merely a footprint, a shadow of the metrical template which underlies the verbal formula and determines the linguistic structure of a poem. This sets the formula length by the standard of the template: "a whole line with half-line substitution" (Foley 1976:213). 'Beowulf mapleode, bearn Ecgpeowes' (*Beowulf* 1383), formulaic in nature, is in tone heroic and ritualistic. The strongly accented rhythm and verbal phrase announces the speech and character by placing them firmly in what Foley defines as paradigms. Anglo-Saxon poetry's metrical template is not fixed, as iambic pentameter is fixed. Rather, it is an oral-aural template, as Foley affirms. The template's continued existence depends on its spoken and heard quality as its variability would be completely precluded by fixation in writing (Foley 1976:220).

Themes are expounded in poetry through formulae. Themes are dependent upon tradition and the repetitive unit which makes up the formula is dubbed the 'stave-root' by Foley. Foley does not argue for an unlettered poet, but he does argue that the Old English 'scop' depended on his hearing for traditional intake and on his oral storytelling craft for traditional output.

Shippey agrees with Parry, Lord, and Magoun's stance on the oral formulaic theory. It is the same process by which children learn their native tongue; thus an oral poet learns his formulaic systems without ever consciously knowing them. By comparing parts of *Beowulf* and *Andreas*, Shippey poses the argument that the formulae occur elsewhere in Old English poetry. Old English poetry is formulaic, but whether it is oral-formulaic is debatable and, furthermore, there was an overlap of oral and written poetry over several decades. The poet did not consciously struggle with compounding, metre, rank, and alliterative collocations, Shippey says. Rather, these four supported the poet's art and guided his genius to the formation of a poem.

### THE CRITICS OF THE ORAL-FORMULAIC THEORY

A number of scholars demonstrate weaknesses in the classical theory of oral formulism. Wrenn and Bolton were comparatively early practitioners. Writing in the 1960s and early 1970s, they say that the formulae in *Beowulf* are not automatic. They show that the a-verse 'Beowulf maðelode' is followed by varying b-verses, and this a-verse also varies within the half-line. A formula may be a whole line, a half-line, or even a half-line with varying lexical content, they believe. These scholars assert that formulae are best dealt with as collocations, not as indivisible units.

In 1966, Larry Benson argued that Magoun's theory is hardening into a doctrine that threatens to narrow the approach to Old English poetry. He argues that the theory almost regards poems as records of performances rather than as fixed literary texts. He critiques the theory by remarking that poems which were not orally composed use formulae, as in *The Phoenix* which is translated very closely to its Latin source, Benson states. It is impossible to have been composed and sung, yet it is heavily formulaic. Proving that a poem is formulaic merely proves that it is a poem, to his mind (Benson 1966:336). *Boethius' Meters* are prose fashioned into Old English poetry, and whole phrases are transferred from the prose. Applying Magoun's theory, this makes the *Meters* up to 60 percent formulaic. Thus, Benson concludes, Old English poetry is formulaic even when composed as literature and not as songs produced orally.

H. L. Rogers' criticisms of Magoun's applications of the oral-formulaic theory to Old English verse were made in 1966. He finds flaws in Magoun's definitions of the oral formula. Rogers also criticises Magoun's acceptance of Milman Parry's

definition of a formula as "a group of words which is regularly employed under the same metrical conditions to express a given essential idea" (Parry 1930:80). Rogers focuses on Magoun's weak applications of the definition in analysing the first 25 lines of *Beowulf*. The true weakness in Magoun's approach, he states, is that the claim of *Beowulf*'s oral-formulaic character depends upon three factors. The first is the method of analysis and counting, the second the minimum standards of similarity demanded before sameness is alleged, and the third the scope allowed to 'unchanged or virtually unchanged' (Rogers 1966:97). Parry's definition of a formula as a 'group of words' has been altered, Rogers claims, to include not only single words but collocations and even grammatical features as well (1966:98).

The essence of a formula is not that of repetition, but a systemic essence, Fry believes. The system is a verse in length, with the two stressed elements of the half-line. This system implies that formulae are based on stressed elements which may or may not be accompanied by attached unstressed elements. Hence, detached unstressed elements are usually not the integral parts of formulae but mere variables whose occurrence is irregular. He defines a formula as: "A group of words, one half-line in length, which shows evidence of being the direct product of a formulaic system" (Fry 1967:204).

Poets drew formulae from a traditional, common stock and linked them together into poems, Momma believes. But no Old English poem is entirely formulaic — *Christ and Satan* have 65 percent of their context as formulaic, *Meters of Boethius* is at 60 percent, and Cynewulf's poetry ranks at 40 percent. Even Magoun shows that more than 25 percent of *Beowulf*, allegedly the most traditional Old English poem, is non-formulaic. The formulae, according to Momma, are no more than sequences of words occurring at least once elsewhere in the corpus, which may even be fractions of half-lines with syntactically unrelated words. Lord said that the formula was the grammar of the poetry, a grammar superimposed on the grammar of the language through versification. But it is now clear to Momma that formulae alone cannot provide sufficient information about poetic grammar.

As formulae are changeable within so-called 'systems', yet essentially static and finite, they also cannot serve as poetic grammar. That point should be able to explain how Anglo-Saxon poets could produce an infinite variety of poems out of a finite stock of formulae. The formulaic theory is limited due to its virtual

exclusion of what makes Old English poetry productive: the complex syntactic behaviour of detached unstressed elements. These are 'added particles' which provide clauses with subjects and objects, finite verbs, adverbs and subordinators. Formulae belong to the lexicon, and grammar to the rules of prosodical syntax.

Parry and Lord's investigations were based on a Yugoslavian 'guslar' as the role model of an oral poet. These scholars thought that an Anglo-Saxon poet was like a 'guslar', an illiterate male who undertook extensive training to compose songs in performance. The 'guslar' are known to have entertained an exclusively male audience with narrative songs. In contrast, the Old English poets performed before a wide, general audience. Their poems are not designed solely for entertainment, nor are the poems purely narrative in all cases. The musical element is one thing that renders comparisons between Serbo Croatian and Old English poetic composition tricky, and gives grounds for scepticism. Anglo-Saxon and Yugoslavian societies were also widely different in structure (Opland 1980:7). Much of the material on which Lord and Parry based their work was collected through tape recordings. This was done during a performance, which is clearly a situation which can never be reproduced for Anglo-Saxon poems. Hence, the limits of applicability of this theory remain uncertain (Shippey 1972:89).

#### OUTSIDE THE SQUARE: CONNER AND DAUNT

Both Patrick Conner and Marjorie Daunt, despite the fact that the latter wrote in 1968 and the former some 20 years later, discuss the same aspect of Anglo-Saxon poetry. Both scholars argue that elements of the ordinary spoken language are in some way governed by the matrix of the verse line.

Patrick Conner discusses the schematisation of poetic diction, writing in the 1980s. He says that Magoun applied Parry's formula theory as 'faithful or near-faithful repetition of a phrase' (Conner 1972:205). But Magoun, according to Conner, overlooked Parry's idea of systemised diction which would have saved Magoun the trouble of searching through the corpus for repetitions. Repetition is not the sole influence on formulae. Conner defines a formula as a half-line in length, a "...product — one half-line in length — of a grammar of poetic diction superimposed upon the grammar of the spoken language" (1972:206). Poetic diction was the word-choice of each poet, he surmises.

Quirk's definition is "... not really complete because it emphasises the lexical elements of the formula, ... and there are more components to be considered" (Conner 1972:212).

Daunt maintains a radically different approach to composition than other scholars. In the 1960s she suggested an entirely new way of looking at Anglo-Saxon versification. Commentators before her had made the assumption that a poetic metre underlies the poetry, and that this metrical regularity had to be revealed, to demonstrate the poets' musical sense. Daunt believes that scholars failed to recognise the importance of the spoken language in poetry (1968:289). Poetry is founded on colloquial speech; it dates from a time when prose did not exist. The spoken language was "arranged for remembrance" (Daunt 1968:290). She uses the example of nursery rhymes aiding children's remembrance of language. Although Old English poetry is replete with artistic flair such as compounds and kennings, it is nevertheless based on a rhythm of spoken language.

Alliteration, Daunt believes, provides an *aide memoir*. Its purpose is both rhythmic and utilitarian, and not purely artistic. The poetry is the spoken, contemporary language, arranged with alliteration. Recited narrative, as Old English poetry was, must follow the natural language and not be an artificial verse form. The story must have had to be easy to understand, for the audience's response. Old English verse is a tidied form of the spoken language, and its patterns are the patterns of the natural language shapes. This rhythm has survived for many centuries, she considers, as she analyses modern speech for upbeats and observes that modern spoken and written language are quite different, as they were undoubtedly in Anglo-Saxon days. Formulaic qualities do not exist in Old English poetry, Daunt states, as it is so firmly rooted in the contemporary spoken language.

## ECHOIC REPETITION

In the 1930s, John Beaty put forward the idea of an 'echo-word' in Anglo-Saxon poetry. This was another approach to how the poet varied words, in contrast to the common acceptance of kennings as variation. His new principle went beyond the emphasis put on the initial consonant, as in alliteration, to the identity of the entire word or of root-syllables. Two words which are linked by sound have a different connotation, he states. Beaty dubs the phenomenon of

repeating a word for the pleasure of echoing its similar sound in a different meaning or association as the 'echo'. In *Beowulf*, lines 2606 and 2607:

Gemunde ða ða are þe he him ær forgeaf,  
wicstede weligne Wægmunðinga,

the sound 'mund' in 'Gemunde' is echoed by the identical sound in 'Wægmunðinga'. This deliberate feature can also be seen at line 1014 'fylla gefægon' echoed in line 1018 'freondum afylla'; likewise line 3115 'wigena strengel' and 3117 'strengum gebæded' (Beaty 1934:366).

Beaty points out that when a subject is continuously discussed, no significance can be attached to repetition of a word appropriate to the subject. He consequently excludes compounds such as those with '-cynig', and pairs such as 'mæst / mæste' at lines 1898 and 1905. Exclusion applies to repetitions of proper names, and phrases such as 'eorla hleo' and 'wigendra hleo' at lines 1967 and 1972. Frequently occurring, commonly-used words are also excluded from the echo-word phenomenon. An outer limit of 17 lines separation is set for occurrences of echoing words. A list of 60 examples from *Beowulf* are ample to establish the echo as a characteristic of *Beowulf's* poetic style, Beaty claims (1934:367). The echo was frequently used to repeat the same word in a different connotation or meaning, as in 'hond aledge / feorh aledge' (lines 0834 and 0851) and at lines 0989 to 0992:

blodge beađuolme onberan wolde.  
ða wæs haten hrepe Heort innanweard  
folmum gefrætwod.

When one of the echoing pair of words is part of a compound word, there is no essential difference, Beaty states. This can be seen in lines 0726 and 0730: 'eode yrremod / Ða his mod ahlog' and lines 2094 and 2102:

2094 yfla gehwylces onðlean forgeald ...

2101 Me þone wælræs wine Scildunga  
fættan golde fela leanode, ...

The joining of words with different roots or of widely varying meanings was another use for the echo. Observe it in action at lines 1618 and 1629:

1618 Sona wæs on *sunde* se þe ær æt sæcce gebad  
wighryre wraðra, wæter up þurhdeaf. ...

1626 Eodon him þa togeanes, gode þancodon,  
ðryðlic þegna heap, þeodnes gefegon,  
þæs þe hi hyne *gesundne* geseon moston.

It can be seen again at lines 2053 to 2056:

Nu her þara banena *byre* nathwylces  
frætwum hremig on flet gæð,  
morðres gylpeð, ond þone maðþum *byreð*,  
þone þe ðu mid rihte rædan sceoldest.'

The final two cases of echo-words are that of a series of words when at least two of the words in the series were of a different connotation or meaning, and when the words were the name or part of the name of a person, or an epic phrase applied to a person. This idea of echoic repetition implies deliberate repetition on the part of the poet. It is not concerned so much with collocation; the echo is different, though it is a related phenomenon. When the tone of poetry is uncertain, as in how much irony is intended by the poet, there is room for infinite debate about the effect and intentions of repetitions. A less subjective approach than that of Beaty is to base research simply on the fact of repetition.

The echoic repetition of formulae is similarly demonstrated by Eugene Kintgen, who extends from Quirk's interest in formulae that naturally call up other formulae, to the issue of echoic repetition of formulae. In 1974 Kintgen described the device as a fundamental in Old English poetic style (Calder 1979:53). Although repetition is recognised by most scholars as a stylistic feature of Anglo-Saxon poetry, Kintgen defines repetition as an intrinsic aspect of the poetry's system. He asserts that there are four types of verbal echo. The first is simple repetition. The second class of echo is when a compound is formed of one or both elements of the echo. Elements which are phonetically similar or related etymologically may combine to form the third class of echo. Kintgen's fourth class of echo is a combination of the second and third types.

The system of echoic repetition is made up equally of narrative and syntactic elements. While not providing more than a brief outline, Kintgen nonetheless sheds some light on the aspect of repetition in Old English poetry.

#### ROSIER'S ASSOCIATION MODEL

A workable model of poetic composition, which steers well clear of the oral element, was put forward by James Rosier in the 1960s. The *Beowulf* poet used a diverse, huge hoard of words to compose his poem, Rosier states, and used verbal association and verbal play in small, confined ways. Scenes of feasting and battle are posed in antithesis, and alternate with each other, when Heorot is featuring in a part of the poem. This repeating pattern of reversal is prefigured as the poem begins in terms of present glory and eventual destruction. There is an overshadowing effect of the dark allusion to devastation by hostility and fire — 'ecghete' and 'heaðowylma' — which await the 'healærna mæst', the greatest of halls in which treasures will be given at the feast.

	healærna mæst	scop him Heort naman
	se þe his wordes geweald	wide hæfde.
80	He beot ne aleh,	beagas dælde,
	sinc æt symle.	Sele hlifade,
	heah ond horngeap,	heaðowylma bad,
	laðan liges	ne wæs hit lenge þa gen
	þæt se <i>ecghete</i>	aþumsweorum

Just as the first description of the hall is laced with presentiment, so the feasts in Heorot are never simply pure jubilation. The feasts are portrayed always with some misgiving. Grendel and Beowulf are influenced by association with this deceptive and ominous theme. Descriptions of feasting, or references to feasting, are more densely concentrated preceding the death of Grendel — up to line 0790 — than elsewhere. It is in these lines that the transferred uses appear. In lines 0480 to 0487 the two feasts are elaborated as Hroðgar chides the noblemen for getting drunk while waiting for Grendel to arrive. The previous evening's beer-stained benches are now 'blode bestymed', wet with blood. Heorot is the same. In just six lines the hall alters from a glorious setting to a scene of chaos:

þæt hie in *beorsele*      bidan woldon  
 Grendles gupe              mid gryrum ecga.  
 ðonne wæs þeos *medoheal* on morgentid,  
 485 *drihtsele dreorfah*,      þonne dæg lixte,  
     eal bencþelu              blode bestymed,  
     *heall heorudreore*      ahte ic holdra þy læs,

The act of feasting is most detailed and associated exclusively with Grendel at lines 0730 to 0745. The eating is described as a normal method of enjoying a meaty meal — the monster tears a limb at its joints ('banlocan'), bites in, takes a swig of blood to wash the meat down, and swallows. The horror of it is, though, that Grendel is consuming a man. The poet transforms the commonplace into something uncommonly brutal (Rosier 1963:9).

A total of 66 references to the hand are to be found in *Beowulf*. The word is used as a simplex: 'hond', 'folmu', and 'mund' with compounds comprised of these, and in the metonymic words 'clamm', 'grap', and 'gripe'. Twenty-nine, or almost half, of these terms referring to 'hand' appear in four clusters. Each cluster is contained in a context to do with Grendel or his mother. Beowulf's fight with Grendel at lines 0722 to 0836 contains 10 references. Beowulf's report of the fight to Hroðgar and a description of the disembodied hand at lines 0963 to 0992 contains eight references. Hroðgar's report of Grendel's mother's visit at lines 1303 to 1343 has six mentions of 'hand', and Beowulf's report to Higelac of the fight with Grendel at lines 2072 to 2099 has five references. It is in the final group that the poet's gift of association can be seen.

This cluster contains two original compounds using 'hand': 'hondræs' at line 2072 and 'gearofolm' at line 2085. There is also one rare word: 'idelhende' at line 2081, besides the simplex 'hand' at line 2099. In line 2076 the poet tells, for the first time, the name of the warrior eaten by the monster: 'þær wæs *Hondscio* / hild onsæge'. The name, Rosier maintains, is shaped by its immediate context and results from a blending of associations. 'Hondscio' does not occur elsewhere in Old English. However, it does occur in Old and Middle High German, and Modern German 'Handschuh' ('glove') is related.

From this, Rosier suggests that the poet composed the passage thus: while forming the lines, the poet wanted to re-emphasise the role of hands, and to do this he put together two new compounds, 'hand-rush' and 'ready-hand'. While

also wanting to provide increment, he remembered that water monsters were traditionally equipped with a glove. By using the words 'hond' and 'glof', a Germanic equivalent was suggested to him, as he realised the appropriateness of individualising Beowulf's slain comrade. The poet may have then decided to adapt the Germanic equivalent as a personal name, since as a compound it both adds to the 'hand' motif and puns upon the allusion to 'glove' (Rosier 1963:11).

Reusing similar scenes for different purposes, and reusing clusters of similar details in terms of new relationships, were devices employed by the *Beowulf* poet. Rosier states that the poet used various forms of association in the art of composition. Association can provide an abrupt contrast, as when mention of the virtuous Hygd suggests her opposite, Thyth. Sometimes it reinforces a scene or theme with parallels from another similar to it, as in Beowulf's visit to Grendel's mother. Association may also shape small strokes of detail. Rosier maintains that the *Beowulf* poet often composed with deliberation and concentration, which is suggested by the relatively high degree of originality in the vocabulary and his extensive capacity for variation. He was aware of the allusiveness of words, and of the complex relationships among words. Adaptation and expansion of a traditional poetic language for new associations was planned, Rosier states. Hence, the use of words, and the choice of those words in *Beowulf* was purposeful.

## LEXICAL COLLOCATION

Scholars have proposed theories based on lexical collocation, that is, on the placing of words in proximity to each other. The probability of chance alliteration in Old English poetry is less than 10 percent, Ross' article 'Philological Probability Problems' states. That fact suggests that randomness is not the sole factor in forming a formula. This goes some way to showing that a poet was not restricted to linking obvious collocates such as 'have and hold'. In Old English poetic composition, a poet had a lot of freedom to choose, but the choices lay within certain fixed parameters.

## QUIRK: TRAILBLAZER OF COLLOCATION THEORY

Randolph Quirk, some 30 years after John Beaty put forward his theory on echo-words, devised a theory based on collocations. It was not until later in the 1960s that scholars proposed models with any type of psycholinguistic base. He states that a formula is a habitual collocation, metrically defined. A formula is the expectation that a sequence of words will show lexical congruity, together with a complementary lexical and grammatical structure.

In Old English verse, 'wide' and 'way' set up a reciprocal expectancy, which operates both within the half and the whole line. In the structure of a single verse, or half-line, the collocation can be seen in 'wegas ofer widland' at line 0198 in *Andreas*. Across half-lines, the collocation is seen at *Paris Psalter* 76.16: 'wærun wegas ðine // on widne sæ'. Collocations are used to link themes, as with the pairing of 'mod' and 'mægen' at *Maldon* line 0313: 'mod sceal þe mare, // þe ure mægen lytað' (Quirk 1963:2). Old English poetics are based on an expectation that recurrent collocations will provide complementary and congruous groupings. However, an especially gifted and experienced poet did not adhere rigidly to metrical convention. Rather, he would let some independence into both conventional lexical connections and conventional grammatical connections. A more modern example of this is seen in Percy Bysshe Shelley's *The World's Wanderers*:

Tell me, moon, thou pale and gray  
Pilgrim of heaven's homeless way

A grammatical connection provided by 'homeless', as in 'space provides no homes' is linked with an independent lexical connection in 'pilgrim', a temporarily homeless person.

Variation encourages extended collocation, Quirk believes, and allows the collocation to proceed beyond both the half and the full line. 'Grendel', for instance, interanimates 'guð' and 'gryre' in *Beowulf*. This lexical connection evokes powerful associations, as with the connection between the concepts of 'death' and 'doom'. Lexical and grammatical connections are concurrent in this passage from *Beowulf* starting at line 1387:

... wyrce se þe mote  
 domes ær deape þæt bið drihtguman  
 unlifgendum æfter selest.

In all these examples above, the metrical two-stress units complement each other. Yet, a high expectation of congruity leads to a great impact of the incongruous. The Old English 'goldwine' invites exultant collocations, and when paired with 'geomor sefa', a distinct contrast is established with it since the latter is metrically linked. Incongruous links of this type can effect a poignant mood, as when Hildeburh is forced to commit her son to the funeral pyre at line 1115 of *Beowulf*: 'selfre sunu ... sweoloðe befasten' (Quirk 1963:10).

These links can also be sinister or ironic. Incongruous links may be sinister, as at the glorious moment of completion when Heorot is described as 'heah ond horn-geap, heaðo-wylma bad' (line 0082). Or the links may point to an antithesis ironically. At line 1709 of *Beowulf*, the hero is predicted as 'hæleðum to helpe'. That verse is collocated with the symbol of evil kingship itself, 'Heremod'. The pairing is followed by lines which develop this antithesis between good and evil types of king, as many pairs of alliterating units (italicised below) defy the congruous complementarity:

	ne geweox he him to <i>willan</i> , ac to <i>wælfæalle</i>
	ond to <i>deaðcwalum</i> <i>Deniga</i> leodum
	<i>breat bolgenmod</i> <i>beodgeneatas</i> ,
	eaxlgesteallan,      oppæt he ana hwearf,
1715	<i>mære</i> þeoden, <i>mondreamum</i> from.
	ðeah þe hine <i>mihtig</i> god <i>mægenes</i> wynnum,
	<i>eafepum</i> stepte,      ofer <i>ealle</i> men
	<i>forð gefremede</i> ,      hwæpere him on <i>ferhþe</i> grow
	<i>breosthord blodreow</i> .      Nallas <i>beagas</i> geaf
1720	<i>Denum</i> æfter <i>dome</i> <i>dreamleas</i> gebad ...

Another thematical example which Quirk illustrates his theory by, is the undermining of the heroic values attached to gold, in *Beowulf*. Metrical collocations such as 'deore maðmas' and 'deað' at line 2236, 'lytel fæc' and 'long-gestreona' at line 2240, and syntactic connections like 'hæðen gold' at line 2276 serve to endorse the transient value of treasure. Completion of this

devaluation occurs with the ultimate irony of the lines describing the disposal of gold for which Beowulf died:

Hi on beorg dydon beg ond siglu,  
eall swylce hyrsta, swylce on horde ær  
3165 niðhedige men genumen hæfdon,  
forleton eorla gestreon eorðan healdan,  
gold on greote, þær hit nu gen lifað  
eldum swa unnyt swa hit æror wæs.

This is undeniably the supreme irony, as the poet has made it clear with his elaborately equivocal use of common formulae. The dragon fight has been often referred to over the preceding 700 lines as a pitifully unequal bargain of gold in exchange for Beowulf's life (Quirk 1963:17). An extremely ironic use of common collocations occurs when Beowulf is represented as seeking out the dragon's hoard. Here the poet indicates that 'wyrd' would be seeking out the treasure-hoard of the hero's soul and that the only dividing up would be of life from body:

2420 wæfre ond wælfus, wyrd ungemete neah,  
se ðone gomelan gretan sceolde,  
secean sawle hord, sundur gedælan  
lif wið lice,

Quirk maintains that formulaic poetry and habitual collocations are the necessary starting point when examining early alliterative poetry. Knowing that a poet could depend on his audience having expectations of certain dependences and determined sequences involving metre, vocabulary, and grammar gave the poet his opportunity to stretch linguistic expression beyond the ordinary potentialities of prose, and to achieve a disturbing and richly suggestive poetry (Quirk 1963:19).

## FOLLOWERS OF QUIRK

In *'Beowulf on the Brink'*, Robert P. Creed draws on Randolph Quirk's article *'Poetic Language and Old English Metre'* which discusses the collocations of sets of alliterating syllables in the same verse or line. According to Creed, Quirk infers that poetry has the static nature of written composition. Creed agrees with

Quirk's concept of collocations, but extends from Quirk by maintaining that collocations generate verse lines. By way of example, at line 1388 in *Beowulf*, 'dom' and 'deað' are collated with 'drihtguman': 'domes ær deaðe / þæt bið drihtguman'. These two nouns are also found together at line 0441: 'dryhtnes dome / se þe hine deað nimeð' and line 1491: 'dom gewyrce, / oþðe mec deað nimeð'. The second verses are so similar both in semantic and syntactical quality that Creed believes the first verse line was in the poet's thoughts when he wrote the second verse. In other words, the earlier pattern at line 0441 generated, or set off the expectancy of, the second verse at line 1491 (Creed 1987:148).

By using 'dom' and 'deað' together, the poet could write effectively and quickly. Both are single syllable nouns that take the stress in a verse. The words resonate; they are semantically linked. When the poet says 'dom', both he and his listeners will think of 'deað'. 'Deað' is followed in a line by 'dom' about one in five times in *Beowulf*, and 'dom' calls up 'deað' about two in five times. There emerges a pattern of 'dom' preceding 'deað'. Creed dubs this stable relationship an Ideal Structure which forms a strong link between the words. This structure allows the poet to compose lines around the two syllables and the concept that links the two syllables. In an Ideal Structure, the syllables and the concepts they represent cause verse lines to be generated (Creed 1987:152).

Anglo-Saxon poetry was a conventional medium, with rules and a defined frame but the poet could coin new expressions and choose combinations of poetic elements even though the poet was a traditional artist in methods and materials. Hence, the work created this way is unique, Reinhard believes. The Anglo-Saxon poet used a conventional medium and generally accepted the traditional frame for his poetry. The frame consisted of poetic formulae and the syntactical patterns underlying them. However, there was still room within the framework for a poet's individuality, in that the poet was free to choose among the combination of traditional poetic elements — and even in the occasional coinage of new expressions based on traditional principles (Reinhard 1976:12). "This ... gave the poet the possibility of overthrowing those expectations by inventing new collocations and thus obtaining a startling effect" (Reinhard 1976:10).

The *Beowulf* poet, by way of example, displayed individuality with alliterative opposition in collocations. In his first speech to Hroðgar, Beowulf expresses his



..... þonne forst ond snaw  
mid ofermægne eorþan þeccað  
wintergewædum ....

The collocation of 'forst' with 'snaw' is not surprising, and the two words are often found together in this way in Modern English. Another logical collocation is that of 'snaw' with the verb 'þeccað'. Finally, 'þeccað' is collocated with 'gewædum', the latter being qualified by the adjective 'winter'. *Beowulf* contains clear examples of the role of collocation. Verse three, 'hu ða æþelingas / ellen fremedon', features the common collocation of princes and brave deeds. Line 2506a reads 'æþeling on elne', which is clearly a collocation on the same half-line of 'æþeling' and 'ellen'. 'Fremman' and 'ellen' are obviously collocated at verses 0636b and 0637a: 'Ic gefremman sceal // eorlic ellen'. Variation of collocation can occur with any element of a collocation, Conner maintains. The repetition, with variation, is found in line 3063: 'eorl ellenrof / ende gefere'; line 2816: 'eorlas on elne; // ic him æfter sceal'; and line 1967: 'elne geeoden / to ðæs ðe eorla hleo'.

Collocation operates cumulatively; it is a perpetuated device and is not renewed for every half-line. Collocated units may be spread out over several lines, and they are triggered either by a requirement for alliterative purposes, or the need for a specific semantic shading (Conner 1972:215). New and useful collocations are constantly suggested by the interdependence of existing collocations.

Stanley Greenfield, writing in the 1950s and 1960s, puts forward many of the same ideas as Quirk and the latter's other followers. In 1955, Greenfield states that associations with other contexts using a similar formula will colour an instance of the formula, leading to overtones to support the aesthetic response. As an example he declares that the *Beowulf* poet suggests Grendel's kinship with other exiles through use of formula. At lines 0721a and 1275a, twice applied to Grendel, the formula 'dreame(-um) bedæled' allows the poet to suggest kinship with all other exiles, indicating Grendel's deprivation of human joys and blessedness (Greenfield 1955:205). Greenfield investigates verbal formulae by analysing the poetic expression of themes.

In the 1960s, both Quirk and Greenfield keep central to their arguments the idea of verbal association. Verbal association can be demonstrated by the use of a word such as 'exile' being followed by a trail of other words, such as 'die', 'path',

and 'wretched'. This model ultimately goes back to analysis of Homer's works, and was likely to have been anticipated by Milman Parry some three decades before Greenfield's work. The process of verbal association, while akin to Quirk's theory of association between lexical collocates, nevertheless goes even further as it depicts an entire situation. Whereas Quirk would observe (for example) an association between 'hand' and 'harp', Greenfield would expand the situation to a scene of 'the singer in the hall entertaining the war-band'. The theory is that subsequent poets would build similar situations into their imagery.

David Crowne, in a slightly contrasting way, analyses narrative structure in light of traditional themes. He falls back on Lord's opinion that themes and formulae are mnemonic units which enable the singer to compose and recite without word-for-word memorisation or the need to write the themes and formulae down. The repetition of theme need not be exact, Crowne believes. He discusses stereotypical themes and the usage of these by the poet, with the plan of the story being the same, elaborated with formulae. Any likenesses between *Andreas* and *Beowulf* are just evidence of common oral tradition, he explains — "similar episodes can be accounted for as parallel uses of the same theme" (Crowne 1960:372). Similar sequences of episodes are examples of a tendency for themes to be used in a particular order.

## SPREADING ACTIVATION

The model of spreading activation has been popularised by Jean Aitchison, who applies the theory to Modern English. In speech, she states, information can flow both backwards and forwards. Sounds can enable a speaker to activate meanings, just as meanings activate sounds. She likens this to an electrical circuit, an interactive circuitry where the current flows between points. The spreading activation theory is defined by Aitchison as that "... in which an initial impetus progressively fans out and activates more and more words as it spreads along the various connections" (1995:206). The initial impetus — that is, the meaning which is intended — may be the lexeme 'rabbit'. With an initial 'r' sound and final 't' sound, the word 'robot' may be activated, in error. Speakers consider many more words than they eventually select, according to Aitchison. After the activation of a large number of possible words, those that are not required are suppressed.

Anything strongly activated in semantics will cause extra activation in phonology, and vice versa, she believes: "Different words require different levels of activation in order to be born: very frequently used words require relatively little to trigger them, while uncommon words are harder to arouse" (Aitchison 1995:207). Freudian slips can be accounted for by the model. These errors occur due to subconscious activation of a topic with which a person is preoccupied. Once a topic is 'set off', a whole range of words related in meaning and sound become activated. Freudian slips are most likely to happen if there exists another link with the intended word, such as a sound link. Someone trying to keep a visit to the doctor secret may say: "I'll give her a prescription for a magazine", when 'subscription' is intended. The phenomenon of spreading activation, sometimes referred to as 'interactive activation', fits the workings of the brain. In the brain, excitation travels along synapses, to excite surrounding neurons. In parallel with the brain's method, when speaking, activation spreads from word to word.

The activation occurs as each word or word-segment triggers new possibilities. Consequently, Aitchison thinks, the identified sound immediately forms links with all words containing a similar sound in the same place. For instance, 'bracelet' may be initially heard as 'blace'. First 'blame' and 'blade' are activated at a higher level than 'bracelet'. Suppression of these words happens as the listener hears more and integrates the words with the context. Eventually 'bracelet' fits the context and is placed in the listener's mind (Aitchison 1995:219). To put it simply: everything sets off everything else that is remotely connected with it.

Aitchison argues that spreading activation models are unrealistic in assuming that all words will be recognised at least when they are finished. She states that short words may be identified a couple of words later. Their ends may be indicated solely by the beginnings of the following words. For instance, the sound 'bun' may end up as 'bundle', 'bunny' or 'bunch'. It may even remain as 'bun'. Even if the speaker has made a provisional decision, they may just as likely change their mind. The spreading activation model is incomplete and ill-formed, Aitchison writes in 1995, but the basics are clear. Now that it is understood to a large degree how words are activated, the challenge is to discover how unwanted words are suppressed and new words fitted in.

As Jean Aitchison made clear, the spreading activation model generates many related words for potential utterance. Russell Poole affirms that the initial

impetus activates more and more possibilities as it spreads along the connections between words. Taking a target word such as 'frigate', words like 'gunboat', 'aircraft carrier' and 'destroyer' might be awaiting activation. 'Figure', 'faggot' and 'freezer' will also be triggered, as they are related phonologically or graphologically to 'frigate'. Relevant links are activated and unwanted words will fade away. Before utterance can occur, the target item has to be selected. For a listener, once the initial 'fr-' sound is heard, words such as 'freezer' and 'front' will be activated, among others, before the word expected from the context is heard.

The spreading activation theory has great "potential relevance to poetic composition" (1998:9), Poole maintains, and it can possibly be applied to any poetical style, as well as to Old English poetry. Drawing on Quirk's reciprocal expectancy idea, Poole emphasises that lexical items making up a formula can straddle a full line in Old English poetry. Hence, a cluster is formed, rather than a formula. He believes that the focus of spreading activation theorists has been too exclusively on the half-line and sets of lexical items which are standard or obvious collocates, as in the lexemes for 'hand' and 'harp'.

## **BEOWULF AS A SPECIAL CASE**

Published articles by scholars from throughout the world have widely maintained that *Beowulf* has special qualities which give rise to the expectation that its language is inherently non-formulaic. Various scholars of Anglo-Saxon poetry have put forward suggestions that the *Beowulf* poet was a more original craftsman than the composers of other poems. There is no doubt in Baum's mind that the poet who composed *Beowulf* was original and special: "A poet as individual and apart as his style, his plan, and his subject" (1963:365). That the *Beowulf* poet enjoyed considerable freedom regarding standard or formulaic collocations, is well accepted. It is debatable whether these collocations provided a 'default' which, as a gifted poet, he could deviate away from as he chose and as the story material demanded. Some scholars, myself included, have an intuitive feeling that the composition of *Beowulf* is special and superior.

### AUDIENCE

Nothing is certainly known of the poet or the audience. *Beowulf* is a work of genius that exists in a literary vacuum without historical perspective. It is to be questioned whether the poet composed for himself or for recitation, what his intention was, and even whether the poet was male or female. That the audience would have to be well-informed on Christianity and history, is a given, according to Baum. The poet was

... a very individual man, a serious and gifted poet, steeped in the older pagan tradition from the continent, moved perhaps by a pious desire to compromise his two religions, and above all delighting in his unusual skill with language (as all poets do) ... (Baum 1963:365).

Reception would seem to be the similarity between Old English and Modern English, with the reader or listener given a 'choric' role by the predictability of a word following once the other has been read or heard. The following word is half-primed before it is seen or heard — as with clichés in news reports, and certain formulisms in *Battle of Maldon*, for example. Regarding the 'choric' role of the audience, it is to be pondered that *Beowulf* was perhaps performed to a more sophisticated audience which was more aware of formulism — rather like the difference between the audience at a country pub and that of a concert

chamber. Predictability was less important for a literate audience, especially one that read silently, but of course it is not known whether the audience was literate or illiterate.

## FORMULAIC STYLE

Stanley B. Greenfield states that poets other than the *Beowulf* author were characterised by a dull, formulaic style. Those poets relied on stock formulae and stylised collocations to form their poems. Lehmann and Tabusa also assume that the *Beowulf* poet made use of a stock of formulae, a stock possibly centuries old. These scholars believe that a few formulae and poetic expressions were partially maintained by the *Beowulf* poet in a linguistic form which bore no resemblance to the spoken language of his day (Lehmann and Tabusa 1958:3). Aesthetic success is not guaranteed by the simple use of formulaic diction, in Creed's opinion. *Beowulf* has highly schematised diction yet "continually marvellous subtlety" (Creed 1959:454). The latter is proof that the use of formulaic diction does not make aesthetic success impossible. Formulae were combined in the most apt way to form the poem, he believes (Creed 1959:454).

Laborde argues that a portion of the conventional phrases were based on a verse matrix. A verse matrix was a phrase consisting of three words forming a first half-line of 'a' type with double alliteration. An example of this is 'habban ond healdan' (Laborde 1924:410).

It was part of the scop's business to have these matrices at his fingertips, so that phrases could be varied to suit circumstances. Hence, proper names could be worked in, as in 'Godric fram guðe' 187 and 'Godric to guðe' 321, so long as alliteration could be secured (Laborde 1924:411).

The phrases, he claims, express parallelisms. They also expand and explain preceding ideas, and may even emphasise a pair of attributes. Other phrases are undoubtedly stereotyped, Laborde states, as in 'linde bæron', and 'har hilderinc'. Sometimes an idea is conventional but its expression is not stereotyped, as when ravens hover over a battlefield. This theory can be applied to all Old English poems.

## SUBSTITUTION / VARIATION

The poets, Greenfield believes, would substitute words for contextual or alliterative purposes. He uses the example of the variations 'gold on grunde' and 'gold on greote' to illustrate this point. Greenfield is certain that this type of substitution was also used for fixed themes such as beasts of battle, and the theme of exile. Lesser poets than the *Beowulf* poet made this constructed, formulated poetry dull and conventional. In contrast, the *Beowulf* poet showed individuality with newly-minted compounds and an original use of themes. The poet also employed variation, typically in double or multiple statement of an idea. Those variations were used to suggest a general or more specific quality, or a different attribute of a concept.

## ALLITERATION

By discussing alliterative patterns, Le Page shows that there are random frequencies of 'extra' alliteration. This extra alliteration is found outside the half-line, and has no stylistic significance in Old English poetry. *Beowulf*, he contends, displays fewer frequencies of this phenomenon: "The lack of it indicates a higher degree of conscious artistry, and in this respect Cynewulf was not as accomplished as the *Beowulf* poet" (Le Page 1959:439). He details dozens of charts with examples of lines of extra alliteration, crossed alliteration, and stress links. This mathematical approach to the issue was followed up by Ross, who contributed more data in the wake of Le Page's extra alliteration idea.

## LITERARY COMPOSITION

Those against the theory of oral composition say that the *Beowulf* poet was no minstrel, rather he was a literary artist. Oral composition as a theory is false reasoning, Stevick states: "... *Beowulf* ... [is] simultaneously formulaic and [a] great work of art" (1962:183). Brodeur wishes to overturn Magoun's assertion that the oral-formulaic quality of the poetry prohibits conventional literary discussion. To do this he analyses compounds in *Beowulf* and demonstrates their truly original structure. Brodeur believes that a precise means of identifying and describing what constitutes originality is needed. By looking at *Beowulf*'s diction, he shows that the poet was a trained 'scop'. The poet was also literate and cultivated, that is, both lettered and unlettered, Brodeur contends.

## OTHER POEMS IN COMPARISON TO *BEOWULF*

Compared to the genius of the *Beowulf* poet, the authors of lesser poems employed distinctly clichéd and repetitive formulaic systems. *The Battle of Brunanburh*, Greenfield states, "is a tissue of heroic formulaic clichés, themes and stylistic variation" (1965:98). *Maldon*, which he finds likewise formulaic and dull, "is in the more scenic style of older epics" (Greenfield 1965:99). In *Andreas*, ... certain locutions strikingly resembling those in *Beowulf* seem awkward, out of place and even ungrammatical in their contexts ... , suggesting direct and ill-advised copying: for example, the temple in Jerusalem (*Andreas* li. 668) is called 'heah and horngeap', an expression elsewhere only found in *Beowulf*, line 82, where it more fittingly describes the royal Heorot (Greenfield 1965:103).

*Andreas* was composed by a poet inferior to the *Beowulf* poet, Greenfield acknowledges, but then he is of the belief that nothing compares to the literary power of *Beowulf*.

## **PROXIMITY DATA**

In the attempt to support the hypothesis, it is one thing to make a very detailed study of the texts, but quite another to do this in a way which might support or reject the theory. It is vital to employ the exact same methods for all words and surveys, so that the results for the different word clusters are fully comparable at the end of the entire data collection process. A primary objective of the study is to test whether the spreading activation theory is correct, based on a study of the formulaic properties of selected Old English texts not including *Beowulf*. A further objective is to compare these texts with *Beowulf* to see if *Beowulf* has any special non-formulaic qualities.

The 10 Old English battle poems, not including *Beowulf*, were set as *Andreas*, *Battle of Brunanburh*, *Christ*, *Elene*, *Exodus*, *The Finnsburh Fragment*, *Judith*, *Juliana*, *Battle of Maldon*, and *Vainglory*.

Selection was made from one poem of a number of words or word sequences. *Beowulf* was the poem chosen, simply because it is the longest of all 11 poems, and is therefore likely to have the widest range of vocabulary. The words or word sequences were divided into categories of nouns, adjectives, and verbs. Nouns and adjectives are more useful than verbs because they more often carry alliteration. Any verbs used were lexical verbs, not auxiliary verbs. It was necessary to decide how many words to choose; the more the better within the constraints of what is possible, as the more examples that are selected, then the more robust the results.

The proximity survey covers 10 words chosen from battle and epic vocabulary. The words are 'hand', 'sweord', 'scield', 'wig', 'hild', 'beorn', 'standan', 'strang', 'rand', and 'beorht'. All variant spellings were taken into account. For the noun 'scield', the spellings 'scyld' and 'scild' were considered. The adjective 'beorht' can be spelt as 'biorht', the noun 'beorn' as 'biorn', and the noun 'sweord' as 'swurde', 'sword', or 'swyrd'. The nouns 'hild' and 'wig' have no variant spellings. 'Strang', taken as an adjective or adverb, and not as a noun, can be spelled 'stranglic', 'strong', or 'strengest'. The nouns 'hand' and 'rand' are seen as 'hond' and 'rond' respectively. 'Standan' was taken in all its verb forms, with 'stede' and suchlike cognates ignored. This could be as 'stod', 'gestod', 'stande', 'astod', 'forstandan', 'standeð', or 'standan'.

The research noted every instance of each word in the selected 10 poems, and every substantive word in the three lines either side of the line of occurrence, to identify likely collocations. The substantive word with the highest rating, and hence the tendency to collocate, indicates the likeliest collocation. This is achieved by observing, for instance, that 'wæpen' occurs four times near 'wig'. Charting the survey will attempt to show that *Beowulf* is less formulaic than the 10 target poems. If the hypothesis is right, the rate of collocations will be lower for *Beowulf*. Testing of the theory took place with another poem as 'control'. This other poem was the longest battle poem, *Battle of Maldon*. The argument will be strengthened if the variations are not identical.

The primary words are represented across a reasonable spread of poems in different genres and with different themes, and includes compounds where the primary word is an element. Any apparent collocations associated with each word were noted, and every instance of each selected word or word sequence in each text (not including *Beowulf*) was recorded. Every incidence of the expected collocation for each text was noted, and the incidence of collocation expressed as a percentage for each text. That is, three collocations of 'shake' with five instances of 'spear' equals 60 percent. These results were plotted on a chart with texts along one axis and words along another. Results for each word were aggregated across all texts, which involved adding all instances of 'spear' and all collocations with 'shake' and expressing them as a percentage. At this point, it could be seen that results of greater than 50 percent indicate that particular words form collocations more often than not.

Any special qualities to be found in the poem *Beowulf* were determined following the same lines, with the process repeated examining only *Beowulf*. Comparison of results — expressed again in percentages — of the *Beowulf* survey with each of the other texts, and aggregate of all other texts, followed. No poem is completely made up of battle vocabulary, and the poems are all different lengths, so there can be no scientific 'control'.

#### COMPARISON BETWEEN THE 'NON-BEOWULF' GROUP AND BEOWULF

*Beowulf* can be compared against the group of 10 chosen poems, by completing a proximity survey chart for each of the words 'sciold', 'beorht', 'beorn', 'sweord', 'hild', 'strang', 'wig', 'hand', 'rand', and 'standan'. The percentages disclosed are

the likelihood that the secondary word will collocate with the primary word in this group of poems. The percentages are rounded to whole numbers.

### 'scield'

Firstly, looking at the word 'scield' and its collocations, the words 'werod', 'guð', 'halig', 'hæleð', and 'gar' were discovered to be the most likely collocations.

In *Andreas*, 'scield' occurs thrice and collocates with 'werod' once and 'halig' twice. *Brunanburh* has just one occurrence of 'scield', and it collocates with 'gar' once. *Christ* also has one occurrence, and it collocates with 'guð' and 'gar' once each. 'Scield' occurs once in *Elene* and does not collocate with any of the five secondary words. The one occurrence in *Exodus* has a collocation with 'werod' twice. *Finnsburh*'s single occurrence collocates once with 'guð'. *Judith* shows regular collocations, with the two occurrences of 'scield', where collocations are with 'hæleð' twice, and 'guð', 'halig', and 'gar' once each. There are three collocations in *Juliana*, with two occurrences of 'scield', and 'guð', 'halig', and 'hæleð' collocating once each. *Maldon*'s three occurrences collocate with 'werod' and 'guð' once each, and with 'gar' twice. *Vainglory*'s two occurrences of 'scield' show no collocations with the five secondary words which were selected.

In total, the group of 10 poems has 17 occurrences of 'scield', and *Beowulf* has nine occurrences. 'Werod' collocates 24% of the time in the group, and 11% of the time in *Beowulf*. 'Guð' collocates in *Beowulf* 44% of the time, while the group has 29%. 'Halig' does not collocate with 'scield' in *Beowulf*, but rates 24% in the group. 'Hæleð' collocates 18% of the time in the group and 11% of the time in *Beowulf*, 'gar' is fairly even on 29% for the 10 poems and 22% for *Beowulf*.

### 'beorht'

'Beorht' was found to collocate most regularly with 'mod', 'halig', 'cyning', 'heofon', and 'miht' in the group of 10 poems. *Andreas* has 17 occurrences of 'beorht', and it collocates with 'miht' six times, with 'mod' five times, with 'halig' and 'cyning' four times each, and with 'heofon' once. Both *Brunanburh* and *Juliana* have one occurrence of 'beorht', and there are no collocations with the five secondary words. *Maldon*, *Vainglory*, and *Finnsburh* have no occurrences of 'beorht'. *Christ*'s 36 occurrences of 'beorht' show collocations with 'heofon' 14 times, with 'cyning' eight times, with 'halig' five times, with 'mod' twice, and there

are no collocations with 'miht'. The 12 occurrences of 'beorht' in *Elene* show collocations thrice each with 'halig' and 'miht' and once with 'cyning'. *Exodus* has five occurrences of 'beorht', and it collocates with 'halig' twice and 'heofon' once. The four occurrences in *Judith* display one collocation each with the words 'mod', 'halig' and 'heofon'.

For the group of 10 poems, 'beorht' appears 76 times, and it appears 19 times in *Beowulf*. 'Mod' collocates in 11% of cases for the group, and 5% for *Beowulf*. 'Halig' and 'cyning' do not collocate with 'beorht' in *Beowulf*. 'Heofon' collocates 22% of the time in the group and 5% of the time in *Beowulf*, 'miht' collocates 12% for the group and 11% for *Beowulf*.

### 'beorn'

The third word to be surveyed was 'beorn'. It occurs 19 times in *Andreas*, where it collocates with 'beorht' four times, with 'land' thrice, with 'hild' twice and with 'eorl' once, and at no time with the fifth collocation for this primary word — 'bord'. *Brunanburh* has two occurrences of 'beorn', where it collocates once each with 'eorl' and 'bord'. The five occurrences in *Christ* show just one collocation, once with 'beorht'. *Elene's* 10 occurrences collocate with 'land' once and 'eorl', 'bord' and 'hild' twice each. Just one collocation with 'land' features in *Exodus's* three occurrences of 'beorn'. *Finnsburh* has one occurrence, and one collocation with 'hild'. *Judith* has three occurrences of 'beorn' and it collocates once each with 'beorht', 'eorl' and 'bord', and twice with 'hild'. Although *Juliana* and *Vainglory* have three and two occurrences of 'beorn' respectively, there are no collocations with the five chosen words. *Maldon* has 15 occurrences of 'beorn', and it collocates with 'land' and 'eorl' thrice each, and with 'bord' nine times.

In total, 'beorn' occurs 63 times in the group and 13 times in *Beowulf*. 'Land' is in 13% of collocations for the group, and 15% for *Beowulf*. 'Beorht' occurs 8% of the time in *Beowulf* and 10% in the group. 'Eorl' does not collocate with 'beorn' in *Beowulf*. The group shows a 21% likelihood of collocation with 'bord', and *Beowulf* shows 15%. 'Hild' is at 11% for the group yet is 31% for *Beowulf*.

'sweord'

'Sweord' was found in close proximity to 'ecg', 'eorl', 'folc', 'wæpen' and 'heard' amongst the group of 10 poems. The two occurrences of 'sweord' in *Andreas* have proximity to 'ecg' twice, and 'folc', 'wæpen' and 'heard' once each. *Brunanburh*'s three occurrences collocate with 'ecg' and 'eorl' twice each, and with 'folc' once. *Christ*'s single occurrence of 'sweord' collocates just once, with 'wæpen'. Both *Elene* and *Exodus* have two occurrences of 'sweord'. In *Elene* it collocates with 'ecg' and 'heard' once each, whereas in *Exodus* the collocation is with 'eorl' once. Although both *Finnsburh* and *Juliana* show three occurrences of 'sweord', not once does it collocate with any of the chosen five words. *Judith*'s 11 occurrences collocate with 'folc' five times, and the other four words once each. 'Sweord' occurs five times in *Maldon*, and it collocates with 'folc' once, and 'eorl', 'wæpen' and 'heard' twice each. There are no occurrences of 'sweord' in *Vainglory*.

*Beowulf* has 49 occurrences of 'sweord', and the group has 33. 'Ecg' and 'eorl' both make up 18% of the group's collocations, in contrast to *Beowulf* at 22% and 4% respectively. The group has 'folc' at 24% and *Beowulf* records just 4%. 'Wæpen' is at 15% for the group and 12% for *Beowulf*, 'heard' ranks at 15% for the group and 24% for *Beowulf*.

'hild'

By examining all occurrences of 'hild' it was discovered that it collocates most often with 'hæðen', 'heard', 'bord', 'folc' and 'gar' in the selected 10 poems. 'Hild' collocates in *Andreas* with 'hæðen' five times, with 'heard' four times, with 'folc' twice, and with 'bord' and 'gar' once each. The sole occurrence in both *Brunanburh* and *Christ* collocates with 'folc' once in each poem. Although *Elene* has 15 occurrences of 'hild', it collocates relatively infrequently, with 'heard' and 'bord' twice each and 'folc' and 'gar' once each. The seven occurrences in *Exodus* are spread amongst 'folc' thrice, 'bord' twice, and 'gar' once. *Finnsburh*'s two occurrences collocate with 'heard' and 'bord' once each. *Judith* and *Juliana* both have four occurrences of 'hild'. In *Judith*, it collocates with 'heard' twice, and with 'bord', 'folc' and 'gar' once each. In *Juliana*, it collocates with 'hæðen' twice and 'gar' once. *Vainglory* has no occurrences of 'sweord'. The nine occurrences in *Maldon* collocate with 'hæðen' once, with 'heard' twice, and with 'folc' and 'gar' thrice each.

Interestingly, both *Beowulf* and the group have exactly 54 occurrences of 'hild'. The comparison is revealing: 'hæðen' is at 15% for the group yet at just 2% for *Beowulf*, 'heard' is at 20% as opposed to 17%, 'bord' at 13% is not far different from *Beowulf*'s 11%, 'folc' is at 22% for the group and 7% in *Beowulf*, and 'gar' does not collocate with 'hild' in *Beowulf* but is at 15% for the group.

#### 'strang'

*Brunanburh*, *Exodus*, *Finnsburh*, *Judith*, *Maldon*, and *Vainglory* do not have any occurrences of the next word to be surveyed, 'strang'. Among the remaining poems, it was found in proximity to 'miht', 'staðol', 'lif', 'mod' and 'fæst'. In *Andreas*, 'strang' collocates with 'staðol' five times, with 'miht' four times, and with the other three words once each. The four occurrences in *Christ* are found near to 'mod' twice, and 'miht' and 'fæst' once each. *Elene*'s sole occurrence is found near 'lif' just once. *Juliana* records three occurrences of 'strang', and it collocates with 'fæst' thrice, with 'staðol' and 'lif' twice each, and with 'mod' once.

In total, the group of 10 poems have 14 occurrences of 'strang' and there are nine in *Beowulf*. 'Strang' does not collocate with 'miht', 'staðol' or 'lif' in *Beowulf*. Respectively, the likelihoods are 36%, 50% and 29% for the 10 poems. 'Mod' collocates at 29% for the group and 22% for *Beowulf*, 'fæst' collocates 36% of the time in the other poems and 11% of the time in *Beowulf*.

#### 'wig'

'Wig' was discovered to collocate most frequently with 'eorl', 'heard', 'wæpen', 'hild', and 'cyning'. In *Andreas*, 'wig' collocates with 'eorl' and 'wæpen' once each, and with 'heard' twice. The three occurrences in *Brunanburh* collocate with 'eorl' and 'cyning' once each. *Christ*'s two occurrences of 'wig' collocate with 'wæpen', 'hild' and 'cyning' once each. *Elene* has 12 occurrences, and it collocates with 'eorl' and 'heard' once each, with 'wæpen' twice, with 'hild' four times, and with 'cyning' five times. The six occurrences in *Exodus* are found near to 'hild' twice and near to 'cyning' thrice. *Finnsburh* has no occurrences of 'wig'. *Judith* and *Juliana* both have one occurrence, and whereas *Judith* shows no collocations with any of the five chosen words, *Juliana* has one collocation with 'heard' for this primary word. *Maldon*'s 10 occurrences collocate with 'wæpen' five times, with 'heard' four times, with 'eorl' twice, and with 'hild' once.

The three occurrences of 'wig' in *Vainglory* collocate with 'eorl' and 'cyning' once each.

*Beowulf* has 40 occurrences of 'wig' and the group of 10 poems a remarkably low total of 42 occurrences. 'Eorl' is found near 'wig' 14% of the time in the group, and 10% of the time in *Beowulf*. 'Heard' is at 19% for the group and 8% for *Beowulf*. *Beowulf* records an 8% likelihood for 'wig' to be found near 'wæpen', and the group has a 21% likelihood. 'Hild' is similar, with the group at 19% and *Beowulf* at 18%; 'cyning' is found in 26% of cases in the group and 10% in *Beowulf*.

#### 'hand'

Likely collocates with 'hand' are 'folc', 'here', 'gar', 'hild' and 'halig'. The 10 occurrences in *Andreas* collocate with 'here' and 'halig' four times each, with 'folc' thrice, and with 'gar' and 'hild' twice each. The single occurrence in *Brunanburh* collocates with 'here' once. *Christ's* 13 occurrences of 'hand' are found near 'folc' twice and 'halig' once. 'Hand' occurs four times in *Elene*, where it collocates with 'folc' and 'gar' once each, and with 'halig' thrice. The 12 times 'hand' occurs in *Exodus* are found to collocate with 'folc' and 'gar' thrice each, and with 'halig' and 'here' twice each. The single occurrence in *Finnsburh* has a collocation with 'here' and 'hild' once each. 'Hand' occurs twice in *Judith* and collocates once with 'gar'; it is found thrice in *Juliana* and collocates once with 'halig'. The six occurrences in *Maldon* are found to collocate with 'gar' thrice and with 'hild' once. *Vainglory* has no occurrences of the word.

In total, the group of 10 poems has 52 occurrences of 'hand' and *Beowulf* has 48 occurrences. 'Folc' has a 17% likelihood of collocation for the group and 8% for *Beowulf*, 'here' is at 15% for the group and 6% for *Beowulf*. 'Gar' is much more likely to collocate with 'hand' in the group — 19% versus 2% for *Beowulf*, but 'hild' is at 29% in *Beowulf* and just 8% in the group. 'Halig' collocates with 'hand' 21% of the time in the group and 2% of the time in *Beowulf*.

#### 'rand'

'Rand' collocates with 'folc', 'hild', 'cyning', 'werod' and 'wigend'. *Brunanburh*, *Christ*, *Finnsburh* and *Vainglory* have no occurrences of this word. The two occurrences in *Andreas* collocate with 'folc' twice and with 'hild' and 'cyning'

once each. The two occurrences in *Elene* are found near 'hild' twice, and near 'folc', 'cyning' and 'werod' once each. 'Rand' occurs seven times in *Exodus*: thrice near 'werod', twice near 'wigend', and once each near 'folc' and 'cyning'. *Judith*'s three occurrences are found near 'folc' and 'cyning' once each, and near 'wigend' thrice. *Juliana* and *Maldon* have one occurrence each, and there are no collocations in *Judith* for the chosen five words, but one collocation with 'folc' in *Maldon*.

*Beowulf* and the group are close for total occurrences of 'rand', with 16 and 17 respectively. 'Werod' and 'wigend' do not collocate with 'rand' in *Beowulf*, but in 25% and 31% of cases respectively for the group. 'Folc' is at 38% for the group and 6% for *Beowulf*, 'hild' is 19% versus 12% in *Beowulf*, and 'cyning' is found in 25% of cases in the group and 18% of cases in *Beowulf*.

#### 'standan'

*Brunanburh* has no occurrences of 'standan', but the word collocates with 'cyning', 'beorn', 'god', 'mod', and 'word' in the other poems. The 23 occurrences in *Andreas* are found near 'word' five times, near 'cyning' four times, near 'god' thrice, and near 'beorn' and 'mod' twice each. *Christ*'s six occurrences are near 'god' thrice, 'mod' twice, and 'cyning' once. It occurs four times in *Elene* and collocates just once, with 'beorn'. 'Standan' occurs nine times in *Exodus*, and it collocates with 'mod' four times, with 'god' twice and with 'beorn' and 'word' once each. *Finnsburh*'s sole occurrence collocates once each with 'beorn' and 'god'. *Judith* and *Vainglory* have one occurrence each, where 'standan' collocates with 'beorn' once in *Judith* and with 'cyning' once in *Vainglory*. *Juliana*'s eight occurrences are collocated with 'cyning' and 'god' twice each. The 15 occurrences of 'standan' in *Maldon* are found near 'beorn' five times, near 'mod' and 'word' twice each, and near 'god' once.

*Beowulf* has a total of 34 occurrences of 'standan' and there are 68 occurrences in the group. 'Beorn' does not collocate with 'standan' in *Beowulf*, but a 16% likelihood is found in the group for this collocation. 'Cyning' is doubly likely to collocate for the group, at 12% versus 6% for *Beowulf*. 'God' is at 18% for the group and 12% for *Beowulf*, 'mod' is at 15% in contrast to 12% in *Beowulf*, and 'word' for the group is at 12% and just 3% in *Beowulf*.

## COMPARISON BETWEEN THE 'NON-MALDON' GROUP AND MALDON

Proximity surveys were completed for 'sciold', 'beorht', 'beorn', 'sweord', 'hild', 'strang', 'wig', 'hand', 'rand', and 'standan'. This would enable a comparison between the 'non-Maldon' group and *Maldon*. *Beowulf* is grouped in with the other nine poems, to enable a comparison with *Battle of Maldon*. There is no need to replicate here all the data for the other nine poems in the group. The percentages are the likelihood that the secondary word will collocate with the primary word in this group of poems, and the percentages are rounded to whole numbers.

### 'sciold'

'Sciold' was found to collocate most often with 'werod', 'guð', 'halig', 'hæleð', and 'gar'. The nine occurrences of 'sciold' in *Beowulf* collocate with 'guð' four times, with 'gar' twice, and with 'werod' and 'hæleð' once each. In total, the group of 10 poems have 23 occurrences of 'sciold', and *Maldon* has three occurrences. 'Werod' collocates 17% of the time for the group, and 33% of the time for *Maldon*. 'Guð' is at 33% in *Maldon's* case while the group has 35%. As 'halig' and 'hæleð' do not collocate with 'sciold' in *Maldon*, the 17% which the group shows for both words is not important for comparison. 'Gar' is over three times more likely to collocate with 'sciold' in *Maldon*, at 67% yet at just 22% for the 10 poems.

### 'beorht'

'Beorht' was found to collocate most regularly with 'mod', 'halig', 'cyning', 'heofon', and 'miht' in the group of 10 poems. It occurs 19 times in *Beowulf*, and collocates with 'miht' twice, and with 'mod' and 'heofon' just once each. For the group of 10 poems, 'beorht' appears 95 times, and not once in *Maldon*.

### 'beorn'

The third word to be surveyed was 'beorn'. It occurs 13 times in *Beowulf*, where it collocates with 'hild' four times, with 'land' and 'bord' twice each, and with 'beorht' once. In total, 'beorn' occurs 61 times in the group and 15 times in *Maldon*. 'Land' occurs in 11% of collocations in the group, and 20% of collocations in *Maldon*. 'Beorht' has an 11% likelihood of collocation for the

group and no likelihood for *Maldon*. 'Eorl' collocates with 'beorn' in *Maldon* 20% of the time, and 8% of the time in the group. The group shows a 10% likelihood of collocation for 'bord', and *Maldon* a 60% likelihood. 'Hild' is at 18% for the group but does not collocate in *Maldon*.

'sweord'

'Sweord' was found in close proximity to 'ecg', 'eorl', 'folc', 'wæpen' and 'heard' amongst the group of 10 poems. *Beowulf* has 49 occurrences, and it collocates 12 times with 'heard', 11 times with 'ecg', six times with 'wæpen', and twice each with 'eorl' and 'folc'. *Maldon* has just six occurrences of 'sweord', and the group has 76 occurrences. 'Folc' and 'wæpen' both make up 12% of the group's most likely collocating words, in contrast to *Maldon* at 17% and 33% respectively. The group has 'ecg' at 22% and *Maldon* records no collocation. 'Heard' is at 20% for the group and 33% for *Maldon*, 'eorl' is at 8% for the group and 33% for *Maldon*.

'hild'

By examining all occurrences of 'hild' it was discovered that it collocates most often with 'hæðen', 'heard', 'bord', 'folc' and 'gar' in the selected 10 poems. *Beowulf* has 54 occurrences of the word; it collocates with 'heard' nine times, with 'bord' six times, with 'folc' four times and with 'hæðen' once. 'Hild' appears 99 times in the group, and nine times in *Maldon*. 'Hæðen' is likely to collocate 8% of the time in the group and 11% of the time in *Maldon*, 'heard' is likely 18% as opposed to 22%, 'folc' is at 13% for the group and 33% in *Maldon*, and 'gar' has just a 5% chance of collocating with 'hild' in the group, but is up at 33% in *Maldon*. 'Bord' does not collocate in *Maldon*, and it is likely 13% of the time in the group.

'strang'

*Brunanburh*, *Exodus*, *Finnsburh*, *Judith*, and *Vainglory* do not have any occurrences of the next word to be surveyed: 'strang'. Among the remaining poems, it was found in proximity to 'miht', 'staðol', 'lif', 'mod' and 'fæst'. It occurs nine times in *Beowulf*, where it collocates with 'mod' twice and 'fæst' once. In total, the group of 10 poems has 23 occurrences of 'strang' and there are none in *Maldon*.

'wig'

'Wig' was discovered to collocate most frequently with 'eorl', 'heard', 'wæpen', 'hild' and 'cyning'. *Beowulf* has 40 occurrences of 'wig'. In this poem it is found near 'hild' seven times, near 'eorl' and 'cyning' four times for each word, and near 'heard' and 'wæpen' thrice each. *Maldon* contains 10 occurrences of 'wig' and the group has a total of 72. 'Eorl' is found near 'wig' 11% of the time in the group, and 20% of the time in *Maldon*. 'Heard' is at 10% for the group and 40% for *Maldon*. *Maldon* records a 50% likelihood for 'wig' to be found near 'wæpen', and the group 10%. 'Hild' is in the group 19% of the time and in *Maldon* 10%; 'cyning' is found in 21% of cases in the group and not once in *Maldon*.

'hand'

Likely collocates with 'hand' are 'folc', 'here', 'gar', 'hild' and 'halig'. 'Hand' occurs 48 times in *Beowulf*, it collocates with 'hild' 14 times, with 'folc' four times, with 'here' thrice, and with 'gar' and 'halig' once each. In total, the group of 10 poems has 94 occurrences of 'hand' and *Maldon* has six. 'Folc' has a 14% likelihood of collocation for the group and does not collocate in *Maldon*, 'here' is at 12% for the group and also is not in *Maldon*. 'Gar' is much more likely to collocate with 'hand' in *Maldon* — 50% versus 9% in the group; 'hild' is at 17% in *Maldon* and 18% in the group. 'Halig' has a 13% likelihood of collocating in the group and is not a collocate with 'hand' in *Maldon*.

'rand'

'Rand' collocates with 'folc', 'hild', 'cyning', 'werod' and 'wigend'. *Beowulf* has 17 occurrences and the collocates are with 'folc' once, with 'hild' twice, and with 'cyning' thrice. *Maldon* has just the single occurrence of 'rand', and the group has 32 occurrences. 'Werod', 'hild', 'cyning' and 'wigend' do not collocate with 'rand' in *Maldon*, but in 13%, 16%, 22% and 16% of cases respectively for the group. 'Folc' is likely to collocate 19% of the time in the group and 100% in *Maldon*.

'standan'

*Brunanburh* has no occurrences of 'standan', but the word collocates with 'cyning', 'beorn', 'god', 'mod', and 'word' in the other poems. There are 34

occurrences of 'standan' in *Beowulf*, it collocates with 'god' and 'mod' four times each, with 'cyning' twice and with 'word' once.

*Maldon* has a total of 15 occurrences of 'standan' and there are 87 occurrences in the group. 'Cyning' does not collocate with 'standan' in *Maldon*, but an 11% likelihood is found in the group for this collocation. 'Beorn' is more than four times as likely to collocate for *Maldon* than the group, at 33% versus 7%. 'God' has a likelihood of 17% in the group and 7% in *Maldon*, 'mod' is at 14% in contrast to 13%, and 'word' for the group is at 8% yet 13% in *Maldon*.

#### COMPARISON BETWEEN THE 'NON-EXODUS' GROUP AND EXODUS

A proximity survey for 'scield', 'beorht', 'beorn', 'sweord', 'hild', 'strang', 'wig', 'hand', 'rand', and 'standan' was completed to compare a group of 10 poems, including *Beowulf* and *Maldon*, with *Exodus*. The percentages are the likelihood that the secondary word will collocate with the primary word in this group of poems. Percentages are rounded to whole numbers.

##### 'scield'

'Scield' was found to collocate most often with 'werod', 'guð', 'halig', 'hæleð', and 'gar'. The nine occurrences of 'scield' in *Beowulf* collocate with 'guð' four times, with 'gar' twice, and with 'werod' and 'hæleð' once each. In total, the group of 10 poems has 25 occurrences of 'scield', and *Exodus* has one occurrence. 'Werod' collocates 12% of the time in the group, and is found twice near the single occurrence of 'scield' in *Exodus*, which equates to a rate of 200%. This is shown in the lines below.

	þæt he on westenne	werod	forbærnde,
	nymðe hie modhwate	Moyses	hyrde.
0125	Scean scir werod,	scyldas	lixtan,
	gesawon randwigan	rihte	stræte,

'Guð', 'halig', 'hæleð', and 'gar' do not collocate with 'scield' in *Exodus*. These words are likely to collocate with 'scield' in the group of 10 poems at likelihoods of 36%, 16%, 16%, and 28% respectively.

'beorht'

'Beorht' was found to collocate most regularly with 'mod', 'halig', 'cyning', 'heofon', and 'miht' in the group of 10 poems. It occurs 19 times in *Beowulf*, and collocates with 'miht' twice, and with 'mod' and 'heofon' just once each. For the group of 10 poems, 'beorht' appears 90 times, and five times in *Exodus*. There are no collocations with 'mod', 'cyning' or 'miht' in *Exodus*; the group has 10%, 14% and 12% likelihood for those three words to collocate with 'beorht'. 'Halig' collocates in 14% of cases in the group and 40% in *Exodus*; 'heofon' is at 19% for the group and 20% in *Exodus*.

'beorn'

The third word to be surveyed was 'beorn'. It occurs 13 times in *Beowulf*, where it collocates with 'hild' four times, with 'land' and 'bord' twice each, and with 'beorht' once. In total, 'beorn' occurs 73 times in the group and it occurs thrice in *Exodus*. 'Land' occurs in 12% of collocations in the group, and 33% of collocations in *Exodus*. 'Beorht', 'eorl', 'bord' and 'hild' are not found near 'beorn' in *Exodus*; the group's likelihoods are respectively 10%, 11%, 21% and 15%.

'sweord'

'Sweord' was found in close proximity to 'ecg', 'eorl', 'folc', 'wæpen' and 'heard' amongst the group of 10 poems. *Beowulf* has 49 occurrences of this word, and it collocates 12 times with 'heard', 11 times with 'ecg', six times with 'wæpen', and twice each with 'eorl' and 'folc'. *Exodus* has just two occurrences of 'sweord', and the group has 80 occurrences. 'Eorl' occurs as a 50% likelihood of collocation in *Exodus*, and a 9% chance in the group. 'Ecg', 'folc', 'wæpen' and 'heard' are not found near 'sweord' in *Exodus*, but the group's likelihoods are 21%, 13%, 14% and 21% respectively.

'hild'

By examining all occurrences of 'hild' it was discovered that it collocates most often with 'hæðen', 'heard', 'bord', 'folc' and 'gar' in the selected 10 poems. *Beowulf* has 54 occurrences of the word; it collocates with 'heard' nine times, with 'bord' six times, with 'folc' four times and with 'hæðen' once. 'Hild' appears 101 times in the group, and seven times in *Exodus*. 'Hæðen' is likely to collocate

9% of the time in the group and is not a collocate in *Exodus*, 'heard' occurs 20% of the time near 'hild' in the group as opposed to never in *Exodus*, 'folc' is at 13% for the group and 43% in *Exodus*, and 'gar' has a 7% chance to collocate with 'hild' in the group, but is double that at 14% in *Exodus*. 'Bord' has a likelihood of 29% in *Exodus* and 11% in the group.

'strang'

As noted, *Brunanburh*, *Exodus*, *Finnsburh*, *Judith*, and *Vainglory* do not have any occurrences of the next word to be surveyed: 'strang'. Among the remaining poems, it was found in proximity to 'miht', 'staðol', 'lif', 'mod' and 'fæst'. It occurs nine times in *Beowulf*, where it collocates with 'mod' twice and with 'fæst' once. In total, the group of 10 poems has 23 occurrences of 'strang' and there are no occurrences in *Exodus*.

'wig'

'Wig' was found to collocate most frequently with 'eorl', 'heard', 'wæpen', 'hild' and 'cyning'. *Beowulf* has 40 occurrences of 'wig'. In this poem it is found near 'hild' seven times, near 'eorl' and 'cyning' four times each, and near 'heard' and 'wæpen' thrice each. *Exodus* has six occurrences of 'wig' and the group has a total of 76. 'Eorl' is found near 'wig' 13% of the time in the group, and is not a collocate of 'wig' in *Exodus*. 'Heard' has a 14% likelihood of collocating in the group and is not found in *Exodus*. *Exodus* records a nil likelihood for 'wig' to be found near 'wæpen', and the group's likelihood is 16%. 'Hild' is in the group 17% of the time and in *Exodus* 33% of the time; 'cyning' is found in 16% of cases in the group and 50% of cases in *Exodus*.

'hand'

Likely collocates with 'hand' are 'folc', 'here', 'gar', 'hild' and 'halig'. 'Hand' occurs 48 times in *Beowulf*, it collocates with 'hild' 14 times, with 'folc' four times, with 'here' thrice, and with 'gar' and 'halig' once each. In total, the group of 10 poems has 88 occurrences of 'hand' and *Exodus* has 12 occurrences. 'Folc' has a 11% likelihood of collocating in the group and a 25% likelihood in *Exodus*, 'here' is at 10% in the group and 17% in *Exodus*. 'Gar' is much more likely to collocate with 'hand' in *Exodus* — 25% versus 9% in the group; 'hild' is

at 20% in the group and does not collocate in *Exodus*. 'Halig' has an 11% likelihood in the group and a 17% likelihood in *Exodus*.

'rand'

'Rand' collocates with 'folc', 'hild', 'cyning', 'werod' and 'wigend'. *Beowulf* has 17 occurrences and the collocates are 'folc' once, 'hild' twice, and 'cyning' thrice. *Exodus* has seven occurrences of 'rand', and the group has 26 occurrences. 'Hild' does not collocate with 'rand' in *Exodus*, but it does collocate in 19% of cases in the group. 'Folc' has a 23% likelihood of collocating in the group and a 14% likelihood in *Exodus*. 'Werod' is much more likely to collocate with 'rand' in *Exodus* (43%) than in the group (4%). *Exodus* has a 14% chance of 'cyning' collocating, the group has a 23% chance; 'wigend' is at 12% in the group and 29% in *Exodus*.

'standan'

*Brunanburh* has no occurrences of 'standan', but the word collocates with 'cyning', 'beorn', 'god', 'mod', and 'word' in the other 10 poems. There are 34 occurrences of 'standan' in *Beowulf* and it collocates with 'god' and 'mod' four times each, with 'cyning' twice and with 'word' once. *Exodus* has a total of nine occurrences of 'standan' and there are 93 occurrences in the group. 'Cyning' does not collocate with 'standan' in *Exodus*, but an 11% likelihood is found in the group for this collocation. 'Beorn' is as likely to collocate for *Exodus* as for the group, at 11%. 'God' is likely to collocate 15% of the time in the group and 22% of the time in *Exodus*, 'mod' is at 11% in the group in contrast to 44% in *Exodus*, and 'word' in the group is at 9% and in *Exodus* it is at 11%.

## PROXIMITY DATA IN TABULAR FORM

PROXIMITY SURVEY TABLES FOR 'SCIELD', 'BEORHT', 'BEORN', 'SWEORD', 'HILD', 'STRANG', 'WIG', 'HAND', 'RAND', 'STANDAN'

TO COMPARE 'NON-BEOWULF' GROUP WITH *BEOWULF*

This set of tables compares *Beowulf* against the group of 10 poems. The primary word is in capital letters, and the numbers are the occurrences of each word, for each poem. The percentages show the proportion of occurrences. For example, when 'scield' is the primary word (in the first table below), 'werod' occurs four times in proximity to 'scield' for all 10 poems and four out of 17 times gives a percentage of 24%. The percentages are the likelihood that the secondary word will collocate with the primary word in this group of poems and are rounded to whole numbers.

	<b>SCIELD</b>	<b>werod</b>	<b>guð</b>	<b>halig</b>	<b>hæleð</b>	<b>gar</b>
Andreas	3	1	0	2	0	0
Brunanburh	1	0	0	0	0	1
Christ	1	0	1	0	0	1
Elene	1	0	0	0	0	0
Exodus	1	2	0	0	0	0
Finnsburh	1	0	1	0	0	0
Judith	2	0	1	1	2	1
Juliana	2	0	1	1	1	0
Maldon	3	1	1	0	0	2
Vainglory	2	0	0	0	0	0
group	17	4	5	4	3	5
group collocations as percentage	100%	24%	29%	24%	18%	29%
<b>BEOWULF</b>	9	1	4	0	1	2
as %	100%	11%	44%	0%	11%	22%

*Proximity Data in Tabular Form*

	<b>BEORHT</b>	<b>mod</b>	<b>halig</b>	<b>cyning</b>	<b>heofon</b>	<b>miht</b>
Andreas	17	5	4	4	1	6
Brunanburh	1	0	0	0	0	0
Christ	36	2	5	8	14	0
Elene	12	0	3	1	0	3
Exodus	5	0	2	0	1	0
Finnsburh	0					
Judith	4	1	1	0	1	0
Juliana	1	0	0	0	0	0
Maldon	0					
Vainglory	0					
group	76	8	15	13	17	9
group collocations as percentage	100%	11%	20%	17%	22%	12%
BEOWULF	19	1	0	0	1	2
as %	100%	5%	0%	0%	5%	11%

	<b>BEORN</b>	<b>land</b>	<b>beorht</b>	<b>eorl</b>	<b>bord</b>	<b>hild</b>
Andreas	19	3	4	1	0	2
Brunanburh	2	0	0	1	1	0
Christ	5	0	1	0	0	0
Elene	10	1	0	2	2	2
Exodus	3	1	0	0	0	0
Finnsburh	1	0	0	0	0	1
Judith	3	0	1	1	1	2
Juliana	3	0	0	0	0	0
Maldon	15	3	0	3	9	0
Vainglory	2	0	0	0	0	0
group	63	8	6	8	13	7
group collocations as percentage	100%	13%	10%	13%	21%	11%
BEOWULF	13	2	1	0	2	4
as %	100%	15%	8%	0%	15%	31%

*Proximity Data in Tabular Form*

	<b>SWEORD</b>	<b>ecg</b>	<b>eorl</b>	<b>folc</b>	<b>wæpen</b>	<b>heard</b>
Andreas	2	2	0	1	1	1
Brunanburh	3	2	2	1	0	0
Christ	1	0	0	0	1	0
Elene	2	1	0	0	0	1
Exodus	2	0	1	0	0	0
Finnsburh	3	0	0	0	0	0
Judith	11	1	1	5	1	1
Juliana	3	0	0	0	0	0
Maldon	6	0	2	1	2	2
Vainglory	0					
group	33	6	6	8	5	5
group collocations as percentage	100%	18%	18%	24%	15%	15%
BEOWULF	49	11	2	2	6	12
as %	100%	22%	4%	4%	12%	24%

	<b>HILD</b>	<b>hæðen</b>	<b>heard</b>	<b>bord</b>	<b>folc</b>	<b>gar</b>
Andreas	11	5	4	1	2	1
Brunanburh	1	0	0	0	1	0
Christ	1	0	0	0	1	0
Elene	15	0	2	2	1	1
Exodus	7	0	0	2	3	1
Finnsburh	2	0	1	1	0	0
Judith	4	0	2	1	1	1
Juliana	4	2	0	0	0	1
Maldon	9	1	2	0	3	3
Vainglory	0					
group	54	8	11	7	12	8
group collocations as percentage	100%	15%	20%	13%	22%	15%
BEOWULF	54	1	9	6	4	0
as %	100%	2%	17%	11%	7%	0%

*Proximity Data in Tabular Form*

	<b>STRANG</b>	<b>miht</b>	<b>staðol</b>	<b>lif</b>	<b>mod</b>	<b>fæst</b>
Andreas	6	4	5	1	1	1
Brunanburh	0					
Christ	4	1	0	0	2	1
Elene	1	0	0	1	0	0
Exodus	0					
Finnsburh	0					
Judith	0					
Juliana	3	0	2	2	1	3
Maldon	0					
Vainglory	0					
group	14	5	7	4	4	5
group collocations as percentage	100%	36%	50%	29%	29%	36%
BEOWULF	9	0	0	0	2	1
as %	100%	0%	0%	0%	22%	11%

	<b>WIG</b>	<b>eorl</b>	<b>heard</b>	<b>wæpen</b>	<b>hild</b>	<b>cyning</b>
Andreas	4	1	2	1	0	0
Brunanburh	3	1	0	0	0	1
Christ	2	0	0	1	1	1
Elene	12	1	1	2	4	5
Exodus	6	0	0	0	2	3
Finnsburh	0					
Judith	1	0	0	0	0	0
Juliana	1	0	1	0	0	0
Maldon	10	2	4	5	1	0
Vainglory	3	1	0	0	0	1
group	42	6	8	9	8	11
group collocations as percentage	100%	14%	19%	21%	19%	26%
BEOWULF	40	4	3	3	7	4
as %	100%	10%	8%	8%	18%	10%

*Proximity Data in Tabular Form*

	<b>HAND</b>	<b>folc</b>	<b>here</b>	<b>gar</b>	<b>hild</b>	<b>halig</b>
Andreas	10	3	4	2	2	4
Brunanburh	1	0	1	0	0	0
Christ	13	2	0	0	0	1
Elene	4	1	0	1	0	3
Exodus	12	3	2	3	0	2
Finnsburh	1	0	1	0	1	0
Judith	2	0	0	1	0	0
Juliana	3	0	0	0	0	1
Maldon	6	0	0	3	1	0
Vainglory	0					
group	52	9	8	10	4	11
group collocations as percentage	100%	17%	15%	19%	8%	21%
BEOWULF	48	4	3	1	14	1
as %	100%	8%	6%	2%	29%	2%

	<b>RAND</b>	<b>folc</b>	<b>hild</b>	<b>cyning</b>	<b>werod</b>	<b>wigend</b>
Andreas	2	2	1	1	0	0
Brunanburh	0					
Christ	0					
Elene	2	1	2	1	1	0
Exodus	7	1	0	1	3	2
Finnsburh	0					
Judith	3	1	0	1	0	3
Juliana	1	0	0	0	0	0
Maldon	1	1	0	0	0	0
Vainglory	0					
group	16	6	3	4	4	5
group collocations as percentage	100%	38%	19%	25%	25%	31%
BEOWULF	17	1	2	3	0	0
as %	100%	6%	12%	18%	0%	0%

	<b>STANDAN</b>	<b>cyning</b>	<b>beorn</b>	<b>god</b>	<b>mod</b>	<b>word</b>
Andreas	23	4	2	3	2	5
Brunanburh	0					
Christ	6	1	0	3	2	0
Elene	4	0	1	0	0	0
Exodus	9	0	1	2	4	1
Finnsburh	1	0	1	1	0	0
Judith	1	0	1	0	0	0
Juliana	8	2	0	2	0	0
Maldon	15	0	5	1	2	2
Vainglory	1	1	0	0	0	0
group	68	8	11	12	10	8
group collocations as percentage	100%	12%	16%	18%	15%	12%
BEOWULF	34	2	0	4	4	1
as %	100%	6%	0%	12%	12%	3%

PROXIMITY SURVEY TABLES FOR 'SCIELD', 'BEORHT', 'BEORN', 'SWEORD', 'HILD', 'STRANG', 'WIG', 'HAND', 'RAND', 'STANDAN'

TO COMPARE 'NON-BEOWULF' GROUP WITH BEOWULF

These tables summarise the preceding tables. The percentages are the likelihood that the secondary word will collocate with the primary word in this group of poems, and the percentages are rounded to whole numbers.

	<b>SCIELD</b>	<b>werod</b>	<b>guð</b>	<b>halig</b>	<b>hæleð</b>	<b>gar</b>
group	17	4	5	4	3	5
group collocations as percentage	100%	24%	29%	24%	18%	29%
BEOWULF	9	1	4	0	1	2
as %	100%	11%	44%	0%	11%	22%

	<b>BEORHT</b>	<b>mod</b>	<b>halig</b>	<b>cyning</b>	<b>heofon</b>	<b>miht</b>
group	76	8	15	13	17	9
group collocations as percentage	100%	11%	20%	17%	22%	12%
BEOWULF	19	1	0	0	1	2
as %	100%	5%	0%	0%	5%	11%

	<b>BEORN</b>	<b>land</b>	<b>beorht</b>	<b>eorl</b>	<b>bord</b>	<b>hild</b>
group	63	8	6	8	13	7
group collocations as percentage	100%	13%	10%	13%	21%	11%
BEOWULF	13	2	1	0	2	4
as %	100%	15%	8%	0%	15%	31%

	<b>SWEORD</b>	<b>ecg</b>	<b>eorl</b>	<b>folc</b>	<b>wæpen</b>	<b>heard</b>
group	33	6	6	8	5	5
group collocations as percentage	100%	18%	18%	24%	15%	15%
BEOWULF	49	11	2	2	6	12
as %	100%	22%	4%	4%	12%	24%

	<b>HILD</b>	<b>hæðen</b>	<b>heard</b>	<b>bord</b>	<b>folc</b>	<b>gar</b>
group	54	8	11	7	12	8
group collocations as percentage	100%	15%	20%	13%	22%	15%
BEOWULF	54	1	9	6	4	0
as %	100%	2%	17%	11%	7%	0%

	<b>STRANG</b>	<b>miht</b>	<b>staðol</b>	<b>lif</b>	<b>mod</b>	<b>fæst</b>
group	14	5	7	4	4	5
group collocations as percentage	100%	36%	50%	29%	29%	36%
BEOWULF	9	0	0	0	2	1
as %	100%	0%	0%	0%	22%	11%

	<b>WIG</b>	<b>eorl</b>	<b>heard</b>	<b>wæpen</b>	<b>hild</b>	<b>cyning</b>
group	42	6	8	9	8	11
group collocations as percentage	100%	14%	19%	21%	19%	26%
BEOWULF	40	4	3	3	7	4
as %	100%	10%	8%	8%	18%	10%

	<b>HAND</b>	<b>folc</b>	<b>here</b>	<b>gar</b>	<b>hild</b>	<b>halig</b>
group	52	9	8	10	4	11
group collocations as percentage	100%	17%	15%	19%	8%	21%
BEOWULF	48	4	3	1	14	1
as %	100%	8%	6%	2%	29%	2%

	<b>RAND</b>	<b>folc</b>	<b>hild</b>	<b>cyning</b>	<b>werod</b>	<b>wigend</b>
group	16	6	3	4	4	5
group collocations as percentage	100%	38%	19%	25%	25%	31%
BEOWULF	17	1	2	3	0	0
as %	100%	6%	12%	18%	0%	0%

	<b>STANDAN</b>	<b>cyning</b>	<b>beorn</b>	<b>god</b>	<b>mod</b>	<b>word</b>
group	68	8	11	12	10	8
group collocations as percentage	100%	12%	16%	18%	15%	12%
BEOWULF	34	2	0	4	4	1
as %	100%	6%	0%	12%	12%	3%

PROXIMITY SURVEY TABLES FOR 'SCIELD', 'BEORHT', 'BEORN', 'SWEORD', 'HILD', 'STRANG', 'WIG', 'HAND', 'RAND', 'STANDAN'

TO COMPARE 'NON-MALDON' GROUP WITH *MALDON*

*Beowulf* is grouped in with the other nine poems, to enable a comparison with *Battle of Maldon*. This set of tables compares *Maldon* against the group of 10 poems. The primary word is in capital letters, and the numbers are the occurrences of each word, for each poem. The percentages show the proportion of occurrences. For example, when 'scield' is the primary word (in the first table below), 'werod' occurs four times in proximity to 'scield' for all 10 poems and four out of 23 times gives a percentage of 17%. The percentages are the likelihood that the secondary word will collocate with the primary word in this group of poems and are rounded to whole numbers.

Proximity Data in Tabular Form

	<b>SCIELD</b>	<b>werod</b>	<b>guð</b>	<b>halig</b>	<b>hæleð</b>	<b>gar</b>
Andreas	3	1	0	2	0	0
Beowulf	9	1	4	0	1	2
Brunanburh	1	0	0	0	0	1
Christ	1	0	1	0	0	1
Elene	1	0	0	0	0	0
Exodus	1	2	0	0	0	0
Finnsburh	1	0	1	0	0	0
Judith	2	0	1	1	2	1
Juliana	2	0	1	1	1	0
Vainglory	2	0	0	0	0	0
group	23	4	8	4	4	5
group collocations as percentage	100%	17%	35%	17%	17%	22%
MALDON	3	1	1	0	0	2
as %	100%	33%	33%	0%	0%	67%

	<b>BEORHT</b>	<b>mod</b>	<b>halig</b>	<b>cyning</b>	<b>heofon</b>	<b>miht</b>
Andreas	17	5	4	4	1	6
Beowulf	19	1	0	0	1	2
Brunanburh	1	0	0	0	0	0
Christ	36	2	5	8	14	0
Elene	12	0	3	1	0	3
Exodus	5	0	2	0	1	0
Finnsburh	0					
Judith	4	1	1	0	1	0
Juliana	1	0	0	0	0	0
Vainglory	0					
group	95	9	15	13	18	11
group collocations as percentage	100%	9%	16%	14%	19%	12%
MALDON	0					
as %	100%	0%	0%	0%	0%	0%

*Proximity Data in Tabular Form*

	<b>BEORN</b>	<b>land</b>	<b>beorht</b>	<b>eorl</b>	<b>bord</b>	<b>hild</b>
Andreas	19	3	4	1	0	2
Beowulf	13	2	1	0	2	4
Brunanburh	2	0	0	1	1	0
Christ	5	0	1	0	0	0
Elene	10	1	0	2	2	2
Exodus	3	1	0	0	0	0
Finnsburh	1	0	0	0	0	1
Judith	3	0	1	1	1	2
Juliana	3	0	0	0	0	0
Vainglory	2	0	0	0	0	0
group	61	7	7	5	6	11
group collocations as percentage	100%	11%	11%	8%	10%	18%
<b>MALDON</b>	15	3	0	3	9	0
as %	100%	20%	0%	20%	60%	0%

	<b>SWEORD</b>	<b>ecg</b>	<b>eorl</b>	<b>folc</b>	<b>wæpen</b>	<b>heard</b>
Andreas	2	2	0	1	1	1
Beowulf	49	11	2	2	6	12
Brunanburh	3	2	2	1	0	0
Christ	1	0	0	0	1	0
Elene	2	1	0	0	0	1
Exodus	2	0	1	0	0	0
Finnsburh	3	0	0	0	0	0
Judith	11	1	1	5	1	1
Juliana	3	0	0	0	0	0
Vainglory	0					
group	76	17	6	9	9	15
group collocations as percentage	100%	22%	8%	12%	12%	20%
<b>MALDON</b>	6	0	2	1	2	2
as %	100%	0%	33%	17%	33%	33%

*Proximity Data in Tabular Form*

	<b>HILD</b>	<b>hæðen</b>	<b>heard</b>	<b>bord</b>	<b>folc</b>	<b>gar</b>
Andreas	11	5	4	1	2	1
Beowulf	54	1	9	6	4	0
Brunanburh	1	0	0	0	1	0
Christ	1	0	0	0	1	0
Elene	15	0	2	2	1	1
Exodus	7	0	0	2	3	1
Finnsburh	2	0	1	1	0	0
Judith	4	0	2	1	1	1
Juliana	4	2	0	0	0	1
Vainglory	0					
group	99	8	18	13	13	5
group collocations as percentage	100%	8%	18%	13%	13%	5%
MALDON	9	1	2	0	3	3
as %	100%	11%	22%	0%	33%	33%

	<b>STRANG</b>	<b>miht</b>	<b>staðol</b>	<b>lif</b>	<b>mod</b>	<b>fæst</b>
Andreas	6	4	5	1	1	1
Beowulf	9	0	0	0	2	1
Brunanburh	0					
Christ	4	1	0	0	2	1
Elene	1	0	0	1	0	0
Exodus	0					
Finnsburh	0					
Judith	0					
Juliana	3	0	2	2	1	3
Vainglory	0					
group	23	5	7	4	6	6
group collocations as percentage	100%	22%	30%	17%	26%	26%
MALDON	0					
as %	100%	0%	0%	0%	0%	0%

*Proximity Data in Tabular Form*

	<b>WIG</b>	<b>eorl</b>	<b>heard</b>	<b>wæpen</b>	<b>hild</b>	<b>cyning</b>
Andreas	4	1	2	1	0	0
Beowulf	40	4	3	3	7	4
Brunanburh	3	1	0	0	0	1
Christ	2	0	0	1	1	1
Elene	12	1	1	2	4	5
Exodus	6	0	0	0	2	3
Finnsburh	0					
Judith	1	0	0	0	0	0
Juliana	1	0	1	0	0	0
Vainglory	3	1	0	0	0	1
group	72	8	7	7	14	15
group collocations as percentage	100%	11%	10%	10%	19%	21%
<b>MALDON</b>	10	2	4	5	1	0
as %	100%	20%	40%	50%	10%	0%

	<b>HAND</b>	<b>folc</b>	<b>here</b>	<b>gar</b>	<b>hild</b>	<b>halig</b>
Andreas	10	3	4	2	2	4
Beowulf	48	4	3	1	14	1
Brunanburh	1	0	1	0	0	0
Christ	13	2	0	0	0	1
Elene	4	1	0	1	0	3
Exodus	12	3	2	3	0	2
Finnsburh	1	0	1	0	1	0
Judith	2	0	0	1	0	0
Juliana	3	0	0	0	0	1
Vainglory	0					
group	94	13	11	8	17	12
group collocations as percentage	100%	14%	12%	9%	18%	13%
<b>MALDON</b>	6	0	0	3	1	0
as %	100%	0%	0%	50%	17%	0%

	<b>RAND</b>	<b>folc</b>	<b>hild</b>	<b>cyning</b>	<b>werod</b>	<b>wigend</b>
Andreas	2	2	1	1	0	0
Beowulf	17	1	2	3	0	0
Brunanburh	0					
Christ	0					
Elene	2	1	2	1	1	0
Exodus	7	1	0	1	3	2
Finnsburh	0					
Judith	3	1	0	1	0	3
Juliana	1	0	0	0	0	0
Vainglory	0					
group	32	6	5	7	4	5
group collocations as percentage	100%	19%	16%	22%	13%	16%
MALDON	1	1	0	0	0	0
as %	100%	100%	0%	0%	0%	0%

	<b>STANDAN</b>	<b>cyning</b>	<b>beorn</b>	<b>god</b>	<b>mod</b>	<b>word</b>
Andreas	23	4	2	3	2	5
Beowulf	34	2	0	4	4	1
Brunanburh	0					
Christ	6	1	0	3	2	0
Elene	4	0	1	0	0	0
Exodus	9	0	1	2	4	1
Finnsburh	1	0	1	1	0	0
Judith	1	0	1	0	0	0
Juliana	8	2	0	2	0	0
Vainglory	1	1	0	0	0	0
group	87	10	6	15	12	7
group collocations as percentage	100%	11%	7%	17%	14%	8%
MALDON	15	0	5	1	2	2
as %	100%	0%	33%	7%	13%	13%

PROXIMITY SURVEY TABLES FOR 'SCIELD', 'BEORHT', 'BEORN', 'SWEORD', 'HILD', 'STRANG', 'WIG', 'HAND', 'RAND', 'STANDAN'

TO COMPARE 'NON-MALDON' GROUP WITH 'MALDON'

These tables summarise the preceding tables. The percentages are the likelihood that the secondary word will collocate with the primary word in this group of poems, and the percentages are rounded to whole numbers.

*Proximity Data in Tabular Form*

	<b>SCIELD</b>	<b>werod</b>	<b>guð</b>	<b>halig</b>	<b>hæleð</b>	<b>gar</b>
group	23	4	8	4	4	5
group collocations as percentage	100%	17%	35%	17%	17%	22%
MALDON	3	1	1	0	0	2
as %	100%	33%	33%	0%	0%	67%

	<b>BEORHT</b>	<b>mod</b>	<b>halig</b>	<b>cynig</b>	<b>heofon</b>	<b>miht</b>
group	95	9	15	13	18	11
group collocations as percentage	100%	9%	16%	14%	19%	12%
MALDON	0					
as %	100%	0%	0%	0%	0%	0%

	<b>BEORN</b>	<b>land</b>	<b>beorht</b>	<b>eorl</b>	<b>bord</b>	<b>hild</b>
group	61	7	7	5	6	11
group collocations as percentage	100%	11%	11%	8%	10%	18%
MALDON	15	3	0	3	9	0
as %	100%	20%	0%	20%	60%	0%

	<b>SWEORD</b>	<b>ecg</b>	<b>eorl</b>	<b>folc</b>	<b>wæpen</b>	<b>heard</b>
group	76	17	6	9	9	15
group collocations as percentage	100%	22%	8%	12%	12%	20%
MALDON	6	0	2	1	2	2
as %	100%	0%	33%	17%	33%	33%

	<b>HILD</b>	<b>hæðen</b>	<b>heard</b>	<b>bord</b>	<b>folc</b>	<b>gar</b>
group	99	8	18	13	13	5
group collocations as percentage	100%	8%	18%	13%	13%	5%
MALDON	9	1	2	0	3	3
as %	100%	11%	22%	0%	33%	33%

*Proximity Data in Tabular Form*

	<b>STRANG</b>	<b>miht</b>	<b>staðol</b>	<b>lif</b>	<b>mod</b>	<b>fæst</b>
group	23	5	7	4	6	6
group collocations as percentage	100%	22%	30%	17%	26%	26%
<b>MALDON</b>	0					
as %	100%	0%	0%	0%	0%	0%

	<b>WIG</b>	<b>eorl</b>	<b>heard</b>	<b>wæpen</b>	<b>hild</b>	<b>cyning</b>
group	72	8	7	7	14	15
group collocations as percentage	100%	11%	10%	10%	19%	21%
<b>MALDON</b>	10	2	4	5	1	0
as %	100%	20%	40%	50%	10%	0%

	<b>HAND</b>	<b>folc</b>	<b>here</b>	<b>gar</b>	<b>hild</b>	<b>halig</b>
group	94	13	11	8	17	12
group collocations as percentage	100%	14%	12%	9%	18%	13%
<b>MALDON</b>	6	0	0	3	1	0
as %	100%	0%	0%	50%	17%	0%

	<b>RAND</b>	<b>folc</b>	<b>hild</b>	<b>cyning</b>	<b>werod</b>	<b>wigend</b>
group	32	6	5	7	4	5
group collocations as percentage	100%	19%	16%	22%	13%	16%
<b>MALDON</b>	1	1	0	0	0	0
as %	100%	100%	0%	0%	0%	0%

	<b>STANDAN</b>	<b>cyning</b>	<b>beorn</b>	<b>god</b>	<b>mod</b>	<b>word</b>
group	87	10	6	15	12	7
group collocations as percentage	100%	11%	7%	17%	14%	8%
<b>MALDON</b>	15	0	5	1	2	2
as %	100%	0%	33%	7%	13%	13%

PROXIMITY SURVEY TABLES FOR 'SCIELD', 'BEORHT', 'BEORN',  
'SWEORD', 'HILD', 'STRANG', 'WIG', 'HAND', 'RAND', 'STANDAN'

TO COMPARE 'NON-EXODUS' GROUP WITH *EXODUS*

This set of tables compares *Exodus* against the group of 10 poems, which include *Beowulf* and *Maldon*. The primary word is in capital letters, and the numbers are the occurrences of each word, for each poem. The percentages show the proportion of occurrences. For example, when 'scield' is the primary word (in the first table below), 'werod' occurs three times in proximity to 'scield' for all 10 poems and three out of 25 times gives a percentage of 12%. The percentages are the likelihood that the secondary word will collocate with the primary word in this group of poems and are rounded to whole numbers.

	SCIELD	werod	guð	halig	hæleð	gar
Andreas	3	1	0	2	0	0
Beowulf	9	1	4	0	1	2
Brunanburh	1	0	0	0	0	1
Christ	1	0	1	0	0	1
Elene	1	0	0	0	0	0
Finnsburh	1	0	1	0	0	0
Judith	2	0	1	1	2	1
Juliana	2	0	1	1	1	0
Maldon	3	1	1	0	0	2
Vainglory	2	0	0	0	0	0
group	25	3	9	4	4	7
group collocations as percentage	100%	12%	36%	16%	16%	28%
EXODUS	1	2	0	0	0	0
as %	100%	200%	0%	0%	0%	0%

*Proximity Data in Tabular Form*

	<b>BEORHT</b>	<b>mod</b>	<b>halig</b>	<b>cyning</b>	<b>heofon</b>	<b>miht</b>
Andreas	17	5	4	4	1	6
Beowulf	19	1	0	0	1	2
Brunanburh	1	0	0	0	0	0
Christ	36	2	5	8	14	0
Elene	12	0	3	1	0	3
Finnsburh	0					
Judith	4	1	1	0	1	0
Juliana	1	0	0	0	0	0
Maldon	0					
Vainglory	0					
group	90	9	13	13	17	11
group collocations as percentage	100%	10%	14%	14%	19%	12%
EXODUS	5	0	2	0	1	0
as %	100%	0%	40%	0%	20%	0%

	<b>BEORN</b>	<b>land</b>	<b>beorht</b>	<b>eorl</b>	<b>bord</b>	<b>hild</b>
Andreas	19	3	4	1	0	2
Beowulf	13	2	1	0	2	4
Brunanburh	2	0	0	1	1	0
Christ	5	0	1	0	0	0
Elene	10	1	0	2	2	2
Finnsburh	1	0	0	0	0	1
Judith	3	0	1	1	1	2
Juliana	3	0	0	0	0	0
Maldon	15	3	0	3	9	0
Vainglory	2	0	0	0	0	0
group	73	9	7	8	15	11
group collocations as percentage	100%	12%	10%	11%	21%	15%
EXODUS	3	1	0	0	0	0
as %	100%	33%	0%	0%	0%	0%

Proximity Data in Tabular Form

	<b>SWEORD</b>	<b>ecg</b>	<b>eorl</b>	<b>folc</b>	<b>wæpen</b>	<b>heard</b>
Andreas	2	2	0	1	1	1
Beowulf	49	11	2	2	6	12
Brunanburh	3	2	2	1	0	0
Christ	1	0	0	0	1	0
Elene	2	1	0	0	0	1
Finnsburh	3	0	0	0	0	0
Judith	11	1	1	5	1	1
Juliana	3	0	0	0	0	0
Maldon	6	0	2	1	2	2
Vainglory	0					
group	80	17	7	10	11	17
group collocations as percentage	100%	21%	9%	13%	14%	21%
EXODUS	2	0	1	0	0	0
as %	100%	0%	50%	0%	0%	0%

	<b>HILD</b>	<b>hæðen</b>	<b>heard</b>	<b>bord</b>	<b>folc</b>	<b>gar</b>
Andreas	11	5	4	1	2	1
Beowulf	54	1	9	6	4	0
Brunanburh	1	0	0	0	1	0
Christ	1	0	0	0	1	0
Elene	15	0	2	2	1	1
Finnsburh	2	0	1	1	0	0
Judith	4	0	2	1	1	1
Juliana	4	2	0	0	0	1
Maldon	9	1	2	0	3	3
Vainglory	0					
group	101	9	20	11	13	7
group collocations as percentage	100%	9%	20%	11%	13%	7%
EXODUS	7	0	0	2	3	1
as %	100%	0%	0%	29%	43%	14%

Proximity Data in Tabular Form

	<b>STRANG</b>	<b>miht</b>	<b>staðol</b>	<b>lif</b>	<b>mod</b>	<b>fæst</b>
Andreas	6	4	5	1	1	1
Beowulf	9	0	0	0	2	1
Brunanburh	0					
Christ	4	1	0	0	2	1
Elene	1	0	0	1	0	0
Finnsburh	0					
Judith	0					
Juliana	3	0	2	2	1	3
Maldon	0					
Vainglory	0					
group	23	5	7	4	6	6
group collocations as percentage	100%	22%	30%	17%	26%	26%
EXODUS	0					
as %	100%	0%	0%	0%	0%	0%

	<b>WIG</b>	<b>eorl</b>	<b>heard</b>	<b>wæpen</b>	<b>hild</b>	<b>cyning</b>
Andreas	4	1	2	1	0	0
Beowulf	40	4	3	3	7	4
Brunanburh	3	1	0	0	0	1
Christ	2	0	0	1	1	1
Elene	12	1	1	2	4	5
Finnsburh	0					
Judith	1	0	0	0	0	0
Juliana	1	0	1	0	0	0
Maldon	10	2	4	5	1	0
Vainglory	3	1	0	0	0	1
group	76	10	11	12	13	12
group collocations as percentage	100%	13%	14%	16%	17%	16%
EXODUS	6	0	0	0	2	3
as %	100%	0%	0%	0%	33%	50%

*Proximity Data in Tabular Form*

	<b>HAND</b>	<b>folc</b>	<b>here</b>	<b>gar</b>	<b>hild</b>	<b>halig</b>
Andreas	10	3	4	2	2	4
Beowulf	48	4	3	1	14	1
Brunanburh	1	0	1	0	0	0
Christ	13	2	0	0	0	1
Elene	4	1	0	1	0	3
Finnsburh	1	0	1	0	1	0
Judith	2	0	0	1	0	0
Juliana	3	0	0	0	0	1
Maldon	6	0	0	3	1	0
Vainglory	0					
group	88	10	9	8	18	10
group collocations as percentage	100%	11%	10%	9%	20%	11%
EXODUS	12	3	2	3	0	2
as %	100%	25%	17%	25%	0%	17%

	<b>RAND</b>	<b>folc</b>	<b>hild</b>	<b>cyning</b>	<b>werod</b>	<b>wigend</b>
Andreas	2	2	1	1	0	0
Beowulf	17	1	2	3	0	0
Brunanburh	0					
Christ	0					
Elene	2	1	2	1	1	0
Finnsburh	0					
Judith	3	1	0	1	0	3
Juliana	1	0	0	0	0	0
Maldon	1	1	0	0	0	0
Vainglory	0					
group	26	6	5	6	1	3
group collocations as percentage	100%	23%	19%	23%	4%	12%
EXODUS	7	1	0	1	3	2
as %	100%	14%	0%	14%	43%	29%

	<b>STANDAN</b>	<b>cyning</b>	<b>beorn</b>	<b>god</b>	<b>mod</b>	<b>word</b>
Andreas	23	4	2	3	2	5
Beowulf	34	2	0	4	4	1
Brunanburh	0					
Christ	6	1	0	3	2	0
Elene	4	0	1	0	0	0
Finnsburh	1	0	1	1	0	0
Judith	1	0	1	0	0	0
Juliana	8	2	0	2	0	0
Maldon	15	0	5	1	2	2
Vainglory	1	1	0	0	0	0
group	93	10	10	14	10	8
group collocations as percentage	100%	11%	11%	15%	11%	9%
EXODUS	9	0	1	2	4	1
as %	100%	0%	11%	22%	44%	11%

PROXIMITY SURVEY TABLES FOR 'SCIELD', 'BEORHT', 'BEORN', 'SWEORD', 'HILD', 'STRANG', 'WIG', 'HAND', 'RAND', 'STANDAN'

TO COMPARE 'NON-EXODUS' GROUP WITH *EXODUS*

These tables summarise the preceding tables. The percentages are the likelihood that the secondary word will collocate with the primary word in this group of poems, and the percentages are rounded to whole numbers.

	<b>SCIELD</b>	<b>werod</b>	<b>guð</b>	<b>halig</b>	<b>hæleð</b>	<b>gar</b>
group	25	3	9	4	4	7
group collocations as percentage	100%	12%	36%	16%	16%	28%
EXODUS	1	2	0	0	0	0
as %	100%	200%	0%	0%	0%	0%

	<b>BEORHT</b>	<b>mod</b>	<b>halig</b>	<b>cyning</b>	<b>heofon</b>	<b>miht</b>
group	90	9	13	13	17	11
group collocations as percentage	100%	10%	14%	14%	19%	12%
EXODUS	5	0	2	0	1	0
as %	100%	0%	40%	0%	20%	0%

	<b>BEORN</b>	<b>land</b>	<b>beorht</b>	<b>eorl</b>	<b>bord</b>	<b>hild</b>
group	73	9	7	8	15	11
group collocations as percentage	100%	12%	10%	11%	21%	15%
EXODUS	3	1	0	0	0	0
as %	100%	33%	0%	0%	0%	0%

	<b>SWEORD</b>	<b>ecg</b>	<b>eorl</b>	<b>folc</b>	<b>wæpen</b>	<b>heard</b>
group	80	17	7	10	11	17
group collocations as percentage	100%	21%	9%	13%	14%	21%
EXODUS	2	0	1	0	0	0
as %	100%	0%	50%	0%	0%	0%

	<b>HILD</b>	<b>hæðen</b>	<b>heard</b>	<b>bord</b>	<b>folc</b>	<b>gar</b>
group	101	9	20	11	13	7
group collocations as percentage	100%	9%	20%	11%	13%	7%
EXODUS	7	0	0	2	3	1
as %	100%	0%	0%	29%	43%	14%

	<b>STRANG</b>	<b>miht</b>	<b>staðol</b>	<b>lif</b>	<b>mod</b>	<b>fæst</b>
group	23	5	7	4	6	6
group collocations as percentage	100%	22%	30%	17%	26%	26%
EXODUS	0					
as %	100%	0%	0%	0%	0%	0%

	<b>WIG</b>	<b>eorl</b>	<b>heard</b>	<b>wæpen</b>	<b>hild</b>	<b>cyning</b>
group	76	10	11	12	13	12
group collocations as percentage	100%	13%	14%	16%	17%	16%
EXODUS	6	0	0	0	2	3
as %	100%	0%	0%	0%	33%	50%

*Proximity Data in Tabular Form*

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	<b>HAND</b>	<b>folc</b>	<b>here</b>	<b>gar</b>	<b>hild</b>	<b>halig</b>
group	88	10	9	8	18	10
group collocations as percentage	100%	11%	10%	9%	20%	11%
EXODUS	12	3	2	3	0	2
as %	100%	25%	17%	25%	0%	17%

	<b>RAND</b>	<b>folc</b>	<b>hild</b>	<b>cyning</b>	<b>werod</b>	<b>wigend</b>
group	26	6	5	6	1	3
group collocations as percentage	100%	23%	19%	23%	4%	12%
EXODUS	7	1	0	1	3	2
as %	100%	14%	0%	14%	43%	29%

	<b>STANDAN</b>	<b>cyning</b>	<b>beorn</b>	<b>god</b>	<b>mod</b>	<b>word</b>
group	93	10	10	14	10	8
group collocations as percentage	100%	11%	11%	15%	11%	9%
EXODUS	9	0	1	2	4	1
as %	100%	0%	11%	22%	44%	11%

## **ANECDOTAL EVIDENCE AND INDIVIDUAL CASE STUDIES**

It was necessary to consider all collocates within the long line, not just the alliterative collocates. This is so because the poet often uses extra alliteration, perhaps not fully consciously. In particular, the stressed syllable at the end of the long line may anticipate the alliteration of the next line.

### 'leof'

All occurrences of 'leof' in *Beowulf*, and the collocations with this word, were examined with an eye to observing patterns, repetitions, and other noteworthy events. The idea was to concentrate on outstanding examples rather than attempting a complete survey. Among the lines containing 'leof', two words were interesting from this selection of collocations: 'leod' and 'longe' / 'lange' occur frequently. Alliterative occurrences in the lines containing 'leof' include 'lange' / 'longe' occurring six times. 'Leod' occurs five times; 'lic' and 'lað' occur four times each; 'lige', 'lind', and 'land' occur twice each. 'Aledon', 'lyt', 'logon', 'lagu', 'belean', 'lust', 'beloren', 'leanes', 'leng', 'lomp', 'lade', 'læst', 'lifes', and 'gelæran' appear once each. In summary, the lexeme 'lange' / 'longe' accounts for approximately 18% of all alliterations with 'leof' in *Beowulf*. There is no strong pattern of spreading activation, since the collocations are dispersed into four groups.

A survey of the 11 lines in which 'leof' alliterates with 'lange' / 'longe' in *Beowulf*, and the lines close by, produced a range of words. Words nearby begin with 'b' at line 0054: 'burg' / 'Beowulf', at line 0618: 'bæd' / 'blið' / 'beor', and at line 1073: 'bearnum' / 'broðrum' / 'byrd'. Words start with 'w' at line 0031: 'wordum' / 'weold' / 'wine', at line 0297: 'wudu' / 'wunden' / 'weder', at line 1061: 'win' / 'worolde', and at line 1809: 'wine'. 'Wine' occurs thrice nearby. At line 0203, the cluster 'hwetton' / 'hige' / 'hæl' is also linked to 'lyt-hwon' which alliterates with 'logon' / 'leof'. Line 1915 has the words 'hrape' / 'holme' / 'hyð', line 1943 has 'huru' / 'hohsnod' / 'Hemminges', and line 2745 has 'hord' / 'harne'. No single collocation is apparent, although words beginning with 'h' do occur frequently. Those words nearby with initial 'f' occur at line 0054: 'folc' / 'fræg' / 'fæder', at line 1061: 'ferhðes' / 'fore' / 'fela', at line 1915: 'fus' / 'faroðe' / 'feor', and finally at line 1943: 'freoðu' / 'feores'. 'Feor' occurs twice.

This survey did not produce any convincing evidence of strongly linked words, as the alliterating initial consonants are not useful for this survey. To be comprehensive a search for all occurrences of 'leof' throughout the poem is needed, and a survey of the nearby words.

All occurrences of 'leof' in *Beowulf* were examined for collocations with 'lange' / 'longe'. The occurrences are in the line at lines 0031, 0054, 1061, 1854 (with 'leng'), 1915, 1994, and 3108. Nearby occurrences are at line 1876 (with 'langað' line 1879), line 2127 (with 'lange'), lines 2130 and 2745 (with 'lungre'), line 2743, line 3079 (with 'longe'), and finally at line 3082.

'Leof' collocates with 'bearn' across the paragraph break, although this punctuation has been added by modern editors and is not found in the manuscript. In two, or 50%, of the occurrences, the collocation pattern is apparent at the paragraph break, as shown below.

0208    lif forlætan    oppe leofne gewrecan.  
          Swa hie bielde forþ    bearn Ælfrices,

0319    be swa leofum menn    licgan þence.  
          Swa hie Æðelgares bearn    ealle bielde,

'Cynn' occurs 31 times in *Beowulf*. It alliterates in four lines, with 'cwise', 'Caines', 'cwealm', 'cwen', and 'cræfte'. 'Freond' occurs 12 times in *Beowulf*. It does not appear until line 0915, and in all occurrences 'freond' alliterates. Alliterations are 'folce' and 'fæste', which both occur twice each. Other alliterations are 'gefrægra', 'fyren', 'afylled', 'facen', 'gefrægn', 'fewer', 'befeallan', 'Frys', 'ful', 'feorum', 'frod', 'fela', 'findan', 'feor', 'feond', 'forð', and 'feasceatum'. Ten occurrences of 'cynn', 'freond', and 'gesiðas' were found, and used as examples.

#### 'cynn'

'Cynn' only alliterates twice in these 10 occurrences, with 'cwise' and with 'cwen'.

'freond'

'Freond' alliterates with 'gefægre' / 'fyren', 'afylled' / 'facen', 'gefrægn' / 'feower', 'befeallen' / 'frys', 'feorum' / 'frod', 'findan' / 'feor', 'feond' / 'fæste', 'fæstne' / 'forð', 'ful', and 'fela'. There are no strong collocations here. 'Freond' does not occur until line 0916.

'gesiðas'

'Gesiðas' alliterates in these 10 occurrences in *Beowulf* with 'swæse' / 'swa' / 'selfa', 'self' / 'snotera', 'selfa' / 'sae', 'swæsra' / 'sin', 'swæse' / 'sylfra', 'swæse' / 'sweord', 'sægde' / 'sefa', and 'sæm'. 'Swæse' is a noticeable alliterative collocation, and 'self' is too, to a lesser degree. 'Gesiðas' does not occur between lines 0029 and 0853. In all but two occurrences, 'gesiðas' alliterates in the line. 'Swæse' / 'swæsra' accounts for four of the alliterations, and 'self' / 'selfa' / 'sylfra' also accounts for four of the alliterations, half of these latter with 'swæse'. The two lines either side of each occurrence have words beginning with 'w' eight times, with 'wiga' occurring twice. Although an 80% rate is intriguing, it is not significant for this study.

Lines near 'cynn'

The lines near to 'cynn', and the alliteratives in the line containing it, have the words 'leom' / 'leafum' / 'lif', 'fela' / 'fyrena' / 'feond', 'god' / 'Geat' / 'Grendel', 'mon' / 'mægnes', 'gum' / 'Geat', 'grette' / 'gold' / 'guman', 'mihtig' / 'manna', 'mynte' / 'man' / 'manna', 'Grendel' / 'gongan' / 'Godes', 'ma' / 'moste' / 'manna', 'modes' / 'myrðe' / 'manna', and 'fela' twice.

Lines near 'freond'

The lines near to 10 occurrences of 'freond' in *Beowulf* provide 'mæg' / 'manna', 'Hroðgar' / 'Heorot', 'gold' / 'gum' / 'manna', 'hamas' / 'hea' / 'Hengest', 'har' / 'hilde' / 'hreon', 'gen' / 'Grendel' / 'geare', 'gold' and 'guma'.

Lines near 'gesiðas'

Lexemes in the lines near to 'gesiðas' are 'word' / 'weold' / 'wine', 'gewiton' / 'swylce' / 'wape', 'rice' / 'randwiga' / 'tweonum', 'hwæpre' / 'walda' / 'wille',

'Higelac' / 'Hrepling' / 'wunap', 'wæl' / 'weotode', 'cwið' / 'wiga' / 'cwealm', 'wæpen' / 'wyrme' / 'wiste', and 'Wiglaf' / 'word'. Words beginning with 'w' are a great feature here.

'feond'

'Feond' occurs 26 times in *Beowulf*. It alliterates in the line in all but one occurrence, at line 1276. There is a gap in occurrences between lines 2289 and 2706. 'Feond' alliterates with 'fæst/e' four times, and with 'forð', 'fremman', 'folme', 'fultum', 'fah' and 'fyren' twice each. Other alliteratives are 'fyr', 'fela', 'fyrena', 'frod', 'oferswyðep', 'flotan', 'from', 'fife', 'fon', 'feorh', 'frofor', 'fagne', 'flor', 'onfeng', 'feor', 'forlacen', 'frætewum', 'fyl', 'fepe', 'forlet', 'fingras', 'foran', 'feorum', 'Fin', 'frofre', 'ofercwom', 'ætferede', 'freond', 'fæðmum', 'firgen', 'fot', 'gefyldan', 'ferh', and 'fæhðo'.

'aglæca'

'Aglæca' occurs 14 times in *Beowulf*. It alliterates in the line every time. The alliterations are with 'a', 'æ', 'o', and 'y/i' twice each, and with 'e' six times. There is a cluster of occurrences between the lines 2520 and 2592, with four occurrences. Notably, there are absences between lines 1512 and 2520, and lines 2592 and 2905.

'lað'

'Lað' occurs 29 times in *Beowulf*. It alliterates in the line on each occasion. 'Leof' is in the line six times; 'lang' / 'leng' / 'longe' is in the line five times; 'lic' and 'lig' appear in the line thrice; 'longsum', 'lyft', 'lif' and 'land' are in the line twice each. Other alliterations are 'last', 'leode', 'gelyfan', 'belean', 'gelome', 'lifigende', 'lastas', 'lungre', 'gelimpe', 'leoda', 'lifde', 'locene', 'lac', 'lean', 'læfan', 'leag', 'licgean', and 'leg'. There is a gap in occurrences between lines 1584 and 2008. Nearby words fell broadly into four groups: those beginning with 'f', 's', 'g', and 'w'. 'F' starts words nearby five times, 's' starts words nearby eight times, and of these, 'sar' appears thrice and 'secg' twice. Words begin with 'g' on six occasions, with 'guð' occurring twice and 'Grendel' occurring thrice. 'W' starts words 10 times, or on 34% of the occasions. Of these, 'wid' appears thrice, and 'wurm' twice. This frequent occurrence of 'w' words was most intriguing, but not significant.

The relationships between 'beorht' and 'beorg', 'stede' and 'standan', 'wig' and 'hand', and 'beorn' and 'strang' are interesting.

#### 'beorht' and 'beorg'

'Beorht' occurs 19 times in *Beowulf*. 'Beorg' occurs 17 times. There is a cluster of 'beorht' occurrences: the word occurs in lines 1161 and 1177. There is a more definite, distinct cluster of 'beorg' occurrences at lines 2524, 2529, 2546, 2559, 2580, and lines 3143 and 3163. 'Beorht' and 'beorg' are never found in the same line. As there are at least two lines between the occurrences of the words under consideration, they are too distant to be straightforward collocations. There are three more distant collocations: 'beorg' in line 0211 and 'beorht' in line 0214; 'beorg' in line 2304 and 'beorht' in line 2313; and 'beorg' in line 3143 and 'beorht' in line 3140. No conclusions can be drawn on any type of formulism based on lexical collocations, in this case.

'Beorgas' alliterates once with 'brimclif' in *Beowulf*, in line 0222. 'Beorht' collocates with 'blac' at line 1517. 'Blac' occurs twice in the poem, at line 1517 and line 1801. 'Brun' occurs thrice, at lines 1546, 2578, and 2615. 'Beorg' never collocates with 'blac' or 'brun'. There is as yet no hard evidence that 'beorht' and 'beorg' really are collocates in poetry. In *Maldon* 'gebeorge' occurs thrice, but 'beorht' does not occur. In *Elene* 'beorge' occurs twice, and 'beorht' 12 times, but there is no collocation. In *Andreas*, 'beorge' occurs five times and 'beorht' never, although there is the formulism of 'beorg' collocating with 'steape'. In *Exodus*, 'beorg' occurs thrice, and 'beorht' never. Although a survey of the entire corpus of Old English poetry would be required to back up this assertion, to all intents and purposes, 'beorg' and 'beorht' do not collocate in poetry.

#### 'stede' and 'standan'

In *Beowulf*, 'stede' occurs nine times. Of these nine occurrences, 'folcstede' and 'wicstede' occur twice each. Forms of the verb 'standan' occur 32 times in this poem, and of these 'gestod' appears thrice. 'Stodon', 'stande', 'forstandan', 'standað', 'standeð', 'gestodon', 'forstod', 'stodan' and 'standan' are the forms of the verb which occur once each. 'Astod' is found thrice, 'stod' 15 times, and 'stodan' twice. 'Stede' and any form of 'standan' never collocate. On three occasions the words are within 10 to 15 lines of each other, but they are never in close proximity: 'burhstede' at line 2265 with 'standan' at line 2272, 'wicstede'

at line 2607 with 'gestodon' at line 2597, and 'wongstede' at line 2786 with 'stod' at line 2769. The other occurrences of 'stede' are more than 30 lines removed. As the smallest gap is seven lines, this is evidence for no formulaic properties.

*Battle of Maldon*, however, shows more formulaic qualities in this exercise. 'Stede' occurs four times, with 'stede-fæste' twice. The very fact that 'stede' compounds with 'fæste' in half the occurrences is a clear pointer for predictable and unoriginal use of 'stede' by the poet. Forms of 'standan' appear 15 times. As this is nearly half the number of occurrences in *Beowulf*, which has 32, in a poem virtually one-tenth of the length, this does indeed seem to show a lack of variety and imagination on the poet's part. Of these 15 occurrences, 'standan', 'stoden', 'gestandan' and 'bestodon' occur once each, 'stod' occurs five times and 'stodon' occurs six times. It is possible to see strong use in particular of two forms of the verb, which may be formulaic and predictable in itself. Of the four occurrences of 'stede' in *Maldon*, in two of them the lexeme collocates in the half-line with a form of 'standan'. These are at line 0019: 'stede' with 'standan', and in line 0127: 'stede-fæste' with 'stodon'. This survey comes some way to verifying the suspicion that the *Maldon* poet relies on formulaic, predictable devices.

'Stede' collocates with 'standan' and other forms of this verb in *Exodus*, *Battle of Brunanburh*, and *Andreas*. In *Exodus*, 'stede' occurs thrice, as 'deaðstede' once and 'meðelstede' twice. Forms of 'standan' occur 11 times; 'stodon' occurs six times, 'forstod', 'gestod', 'wealhstod', 'standan', and 'staðe' occur once each. No collocation occurs with 'stede' and 'standan'. *Exodus* is a poem less than one-fifth the length of *Beowulf*, yet it contains nearly one-third the total of *Beowulf's* occurrences of 'standan'. The *Exodus* poet uses forms of 'standan' more often than the *Beowulf* poet.

In *Brunanburh*, 'stede' occurs thrice, as 'folcstede' once and as 'campstede' twice. 'Standan' does not occur. Hence there are no collocations here. Again, the proportional uses of 'stede' are higher than in *Beowulf*. Three occurrences out of 73 lines gives a percentage of 4.1, as opposed to *Beowulf* with nine out of 3182 lines, or a percentage of 0.28.

In *Andreas*, 'stede' occurs nine times, as 'folcstede' and as 'meðelstede' twice each, and as 'stedewangas', 'stedewange', 'burhstedum', 'wangstede', and 'pingstede' once each. 'Standan' occurs 22 times, in the form 'standan' five

times, as 'stodon' four times, as 'stod' and 'forstod' thrice each, as 'wiðstod', 'astod', 'stande', 'gestod', 'standað', 'astandan', and 'astodon' once each. The occurrences of 'stede' and 'standan' are all more than 10 lines apart, hence there is nothing that could properly be termed a collocation. The number of occurrences in relation to the length of the poem is high, in comparison with *Beowulf*, where 'stede' occurs nine times, and 'standan' 32 times. This would seem to point to formulism, as set by Magoun's definition of a formula as 'a group of words which is regularly employed under the same metrical conditions to express a given essential idea'. 'Stede' has a proportion of 0.52% in *Andreas* as opposed to 0.28% in *Beowulf*, and 'standan' a proportion of 1.3% as opposed to 0.01% in *Beowulf*.

#### 'wig' and 'hand'

'Wig' and 'hand' in *Beowulf* were examined for their collocations. 'Wig' collocates with 'wæpen' at line 0685 in the line, at line 1042 with 'wæpna', at line 1284 in the line with 'wæpned', and at line 1554 with 'wæpna'. Occurrences of 'hand' collocating with 'hild' were found at line 0558, at lines 0986 and 1678 in the line, at line 2208 with 'hild' / 'hilde', and at lines 2201, 2202, and 2205. Lines 2596 and 2720 contain the alliteration with 'hilde', it occurs also in lines 2598, 2723, and finally at 3124 in the line.

'Wig' occurs 39 times in *Beowulf*. The word alliterates on all but one occasion, thrice each with 'wyrmes', 'word' and 'wid', and twice each with 'weorð', 'wæter', 'wif', 'Wedera', 'wine', 'wyrstan', 'wiht', and 'weorðunga'. It alliterates once each with 'wisdom', 'wyrðe', 'wyrð', 'wolde', 'Wealhðeo', 'wæpen', 'witig', 'wurm', 'walu', 'worolde', 'wynne', 'wea', 'wæl', 'wæron', 'wæccende', 'wer', 'wæpned', 'wanode', 'wyrde', 'geweold', 'witig', 'wanian', 'wæs', 'wundra', 'wraða', 'weorc', 'weold', 'wolcnum', 'geweoðad', 'worn', 'weccean', 'westenne', 'wealles', 'wen', 'wrætlic', 'wisse', 'gewac', 'wraðe', 'forwurpe', 'wlonces', 'wiðres', and 'wil'. This shows that the poet was in no way tied to alliterating pairs of a predictable kind, in fact, he was predisposed to quite the reverse.

'Wig' occurs 11 times in *Battle of Maldon* and alliterates in all but one case. The alliterates are 'wæpnum' / 'wæpen' four times, 'wigan' twice, and 'Wulfstan', 'wacian', 'wicinga', 'wod', 'wendon' / 'wendan' / 'wende', 'wudu', 'wandode', 'wyrcean', and 'weorod' once each. Words starting with 'h' occur five times in nearby lines, with 'healdan' twice and 'heard' twice. 'F' starts words five times

nearby, with 'feores' twice. Words beginning with 'g' and 'b' are found nearby twice each.

In *Beowulf*, 'hand' occurs 23 times. It alliterates in the line on all but one occasion, thrice with 'hilde', twice with 'heard' and once each with 'Heaðolafe', 'hroden', 'hron', 'hige', 'heanne', 'hrof', 'hæðenes', 'hafen', 'helm', 'heal', 'Heorote', 'hreðer', 'harum', 'hraðe', 'hæðnum', 'Higelac', 'Hiorte', 'hean', 'hwile', 'gehwearf', 'geheold', 'Huga', 'heape', 'hedde', 'heafolan', 'hyne', 'heoro', 'hæfen', and 'hearpan'. 'Hand' occurs six times in *The Battle of Maldon*. It alliterates on four occasions, with 'hycgan', 'hyge', 'hwile', 'healdan', 'gehwæðere', 'hyssas', 'hysses', and 'heals'.

#### 'beorn' and 'strang'

'Beorn' is found in *Andreas*, *Elene*, *Exodus*, and *Brunanburh*. *Brunanburh* has two occurrences, *Exodus* has three occurrences, *Elene* has 10 occurrences, and *Andreas* has 19 occurrences. While surveying the lines either side of the occurrence, and the line of occurrence, a moderate incidence was noticed of the lexemes 'breost' and 'beag/h'. Taking each poem, *Brunanburh* has 'beahgifa' in the same verse as 'beorn' at line 0002. *Exodus* has no noticeable points. *Elene* has 'beaggifa' near the occurrence at line 0100, 'beaggifan' near line 1198, 'breostsefa' near line 0804, 'borda' near line 0114, and 'bord' near line 1186. *Andreas* has 'breost' near lines 0768 and 1247, 'beaducræft' near line 0219, 'beadurofe' near line 0848, 'beorht' near lines 0447 and 1247, and 'burh' near lines 0660, 0982, and 1120. Although these three occurrences of 'burh' near to 'beorn' are noteworthy, it is not a feature in other poems, so no comparative statements can be made.

To see if any connection could be made between passages containing 'beorn', *Deor*, *Dream of the Rood*, *Judith*, *The Phoenix*, *The Seafarer*, and *The Wanderer* were examined. *Deor* and *The Phoenix* have no occurrences. *Dream of the Rood* has three occurrences, and 'beorn' alliterates with 'beorg' and 'beorht'. *Judith* has three occurrences, and 'beorn' alliterates with 'bord'. *The Seafarer* has just one occurrence, where 'beorn' alliterates with 'breost'. *The Wanderer* has two occurrences, and here it alliterates with 'breost'. The only conclusion from this survey is that 'breost' is a common alliterative partner with 'beorn'.

'Beorn' occurs 15 times in *Battle of Maldon*. Alliterations in the line are with 'bord' six times, with 'Byrhtnōþ' thrice, with 'gebeorge' and 'begen' twice each, and with 'beran', 'Byrhðelmes', 'bearn', 'biter', 'beadu', 'bræd', 'blodigne', 'beagas', 'bi', 'bæd', 'bræc', 'gebroðu', and 'beadlice' once each. In terms of collocations, 'bord' in the line either side of the occurrence appears twice. That is the only word with any sort of repetition.

*Exodus*, *Battle of Brunanburh*, *Battle of Maldon*, *Deor*, *Judith*, and *The Wanderer* have no occurrences of the adjective 'strang'. *Elene* has just the one occurrence. The single occurrence in *The Seafarer* is in the form 'strongum mode'. *Andreas* has four occurrences. *Dream of the Rood* has two occurrences; 'feondas' is in the line in one occurrence. 'Stiðmod' is in the other line, with 'modig' nearby. *The Phoenix* has three occurrences, including the phrase 'strong feþum'. Another occurrence had 'feþum' nearby. Two occurrences, at lines 0099 and 0161, have the phrase 'þonne strong waþum'.

#### MALDON'S FORMULISM

*Battle of Maldon* has been seen by many scholars as one of the most predictable and formulaic of all extant Old English poems. By investigating aspects of its language, formulaic properties should become clear. 'Sweord' occurs six times in the poem, and alliterates in the line only once, with 'swiðe' and 'swenges'. 'Sciold' occurs thrice and it alliterates on two occasions, with 'scir', 'sceaf', and 'sceaft', which tends to suggest something less than out-and-out formulism. The poet does seem to employ more formulaic devices than the poet of *Beowulf*, but more concrete nouns need to be surveyed to solidify this statement further. 'Cynn' occurs thrice and alliterates once, with 'cafne' and 'Ceolan'. 'Hild' has nine occurrences and alliterates in all cases, twice each with 'hyssas' and 'forheawen', and once in each case with 'hafoc', 'holtes', 'hearde', 'here', 'hæðre', 'heanlic', 'hogodon', 'har', 'hearma', 'hræðe', 'heow', and 'hiende'. 'Leof' occurs four times and alliterates thrice, with 'liehte', 'leodum', 'lif', 'forlætan', and 'licgan'. This demonstrates formulaic properties, more so than the surveys from *Beowulf*.

## SPEARS AND SHIELDS

Further attempts to prove the formulaic nature of *Maldon* can be made through an analysis of phrases in the poem that have to do with shaking a spear or lifting a shield as protection. In line 0020, 'randas' occurs: 'and bæd þæt hira *randas* / rihte heoldan'. This instance of lifting a shield as protection occurs once with 'rand' so it cannot be said if this is formulaic. It does not mean 'lift' as much as this next example. Line 0244 uses 'linde': 'Leofsunu gemælde / and his *linde* ahof ...'. Just the one occurrence with 'linde', so again, no formulism to discern.

'Æsc' is used in two lines, line 0043: 'wand wacne æsc, wordum mælde ...'; and line 0310: 'se wæs eald geneat — æsc acweahte'. These two occurrences are in the line following an occurrence of 'bord'. The use at line 0230 is with 'æsc-holt': 'Offa gemælde, æsc-holt ascoc ...'. One cannot ascertain any formulism from this. 'Bord' features in line 0131: 'bord to gebeorge, and wiþ þæs beornes stop...' and line 0245: 'bord to gebeorge; he þam beorne oncwæþ...'. Both of these are the second line in the paragraph, and provide clear evidence of formulism. Also, in line 0245 'bord' follows line 0244 'linde'. Two further examples of 'bord', in line 0042: 'Byrhtnoþ maðelode, bord hafenode', and line 0309: 'Byrhtwold maðelode, bord hafenode'. There is clear formulism here.

The lines in the immediate context of these lines from *Maldon* thematically linked with shaking spears or lifting shields lines do not contribute to the pattern in any way. Here are the lines in their context, with references to shaking spears or lifting shields in italics:

0040 we willaþ mid þam sceattum us to scype gangan,  
on flot feran, and eow friþes healdan."  
Byrhtnoð maþelode, *bord hafenode*,  
wand wacne æsc, wordum mælde,  
yrre and anræd ageaf him andsware:  
0045 "Gehyrst þu, sælida, hwæt þis folc segeð?

---

þe on Denon wolde dom gefeohtan.  
0130 Wod þa wiges heard, *wæpen up ahof*,  
bord to gebeorge, and wið þæs beornes stop.  
Eode swa anræd eorl to þam ceorle,  
ægþer hyra oðrum yfeles hogode.

---

forþan wearð her on felda folc totwæmed,  
scyldburih tobrocen. Abreoðe his angin,  
þæt he her swa manigne man aflymde!"  
Leofsunu gemælde and his *linde ahof*,  
0245 bord to gebeorge he þam beorne oncwæð:  
"Ic þæt gehate, þæt ic heonon nelle

---

þæt hi þær æt ðearfe þolian sceoldon,  
unwaclice wæpna neotan.  
Byrhtwold mapelode *bord hafenode*  
0310 (se wæs eald geneat), æsc acwehte  
he ful baldlice beornas lærde:  
"Hige sceal þe heardra, heorte þe cenre,

#### COMPARISON AND CONTRAST BETWEEN *MALDON* AND *BEOWULF*

A comparison and contrast summary between four words occurring in *Beowulf* and *Battle of Maldon* is useful for investigation into perceived formulaic qualities. *Beowulf* is 3182 lines long, and *Maldon* is 325 lines long, so comparisons may be seen in this light. In other words, there is a numerical ratio between *Beowulf* and *Maldon* of approximately 10:1. However, in practice the numbers of occurrences in *Maldon* may be too small to gain any insight.

#### 'cynn'

'Cynn' occurs 31 times in *Beowulf* and thrice in *Maldon*. It alliterates in *Beowulf* in four lines, with 'cwise', 'Caines', 'cwealm', 'cwen', and 'cræfte'. These lines are below; the final example shows double alliteration.

0098: *cynna* gehwylcum, þara ðe *cwice* hwyrfaþ

0107: in *Caines cynne* — þone *cwealm* gewræc

0613: *cwen* Hroðgares, *cynna* gemyndig,

2181: ac he *mancynnes* mæste *cræfte*

In *Maldon* 'cynn' alliterates once, with 'cafne' and 'Ceolan', at line 0076: '*cafne* mid his *cynne*; þæt wæs *Ceolan* sunu'. In *Beowulf*, the two lines either side of each occurrence, and the alliteratives in the line containing it, provide a pattern of words beginning with 'm' 17 times, with 'man' / 'manna' / 'mon' occurring 13 times:

0110: metod for þy mane, *mancynne* fram.

0196: se wæs *moncynnes* mægenes strengest

0701: þæt mihtig God *manna* cynnes

0712: mynte se *manscaða* *manna* cynnes

0735: þæt he ma moste *manna* cynnes

0810: modes myrðe *manna* cynne,

0914: mæg Higelaces, *manna* cynne,

1057: ond ðæs *mannes* mod. Metod eallum weold

1058: gumena cynnes, swa he nu git deð.

1276: *mancynnes* feond, ond his modor þa gyt

1725: hu mihtig god *manna* cynne

1729: *monnes* modgeþonc mæran cynnes

1955: ealles *moncynnes* mine gefræge

2181: ac he *mancynnes* mæste cræfte

The appearance of 'man' at line 1057 is important as this word collocates with 'cynn' in the next line, only this one time.

'God' appears four times in the lines in *Beowulf* which have 'cynn'. 'God' and 'mann' are lexical collocates, as in modern English.

0701: þæt mihtig *God* manna cynnes

0711: Grendel gongan, *Godes* yrre bær;

0712: mynte se manscaða manna cynnes

1725: hu mihtig *God* manna cynne

2181: ac he *mancynnes* mæste cræfte

2182: gin-fæstan gife, þe him *God* sealde,

As there is only one occurrence in *Maldon*, and hence not enough information to make a comparison with *Beowulf*, there is no argument for formulaic tendencies through this survey.

### 'leof'

*Beowulf* has 34 occurrences of 'leof', and *Maldon* has four occurrences. On six occasions in *Beowulf* it occurs with no alliteration on 'l' in the line. In *Beowulf*, 'leof' alliterates in the line with 'lange' / 'longe' six times, with 'leod' five times, with 'lic' and 'lað' four times each, and with 'lige', 'lind', and 'land' twice each. These words occur once each: 'aledon', 'lyt', 'logon', 'lagu', 'belean', 'lust', 'beloren', 'leanes', 'leng', 'lomp', 'lade', 'læst', 'lifes', and 'gelæran'. In summary, 'lange' / 'longe' accounts for approximately 18% of all alliterations with 'leof' in *Beowulf*.

'Leof' alliterates thrice in *Maldon*, with 'liehte', 'leodum', 'lif', 'forlætan', and 'licgan'. The lines are:

0023: he *liehte* þa mid *leodum* þær him *leofost* wæs

0208: *lif* *forlætan* oppe *leofne* gewreca

0319: be swa *leofum* menn *licgan* þence.

In *Maldon*, words starting with 'b' occur twice near occurrences of 'leof', with 'bearn' and 'bielde' occurring twice each. The two occurrences quoted here demonstrate formulaic properties, with the lexemes 'bearn' and 'bielde' collocated in the same line :

0208 lif forlætan oppe leofne gewrecan  
Swa hie *bielde* forþe *bearn* Ælfrices

0319 be swa leofum menn licgan þence.  
Swa hie Æðelgares *bearn* ealle *bielde*

There is no strong pattern of spreading activation in *Beowulf*; the collocations are dispersed. Despite the high proportion of 'lange' / 'longe' collocations related to 'leof' in *Beowulf*, *Maldon* shows more formulaic properties in comparison.

#### 'wig'

'Wig' occurs 39 times in *Beowulf* and it occurs 11 times in *Maldon*. The different rates of occurrence may be explained by the subject matter of *Maldon*.

In *Beowulf* the word alliterates on all but one occasion, with 'wyrmes', 'wid', and 'word' thrice each, and with 'weorð', 'wine', 'wæter', 'wif', 'Wedera', 'wiht', and 'wyrstan' twice each. It alliterates once in each case with 'witig', 'wurm', 'walu', 'worolde', 'wil', 'weorþunga', 'wisdom', 'wyrðe', 'wyrð', 'wolde', 'Wealhþeo', 'wæpen', 'wynne', 'wea', 'wæl', 'wæron', 'wæccende', 'wer', 'wæpned', 'wanode', 'wyrde', 'geweold', 'witig', 'wanian', 'wæs', 'wundra', 'wraðra', 'weorc', 'weold', 'wolcnum', 'geweorþad', 'worn', 'weccean', 'westenne', 'wealles', 'wen', 'wrætlic', 'wisse', 'gewac', 'wraðe', 'forwurpe', 'wlonces', and 'wiðres'.

In *Maldon*, it alliterates in all but one case. The alliterates are 'wæpnum' / 'wæpen' four times, 'wigan' twice, and 'wacian', 'wod', 'wicinga', 'Wulfstan', 'wendon' / 'wendan' / 'wende', 'wudu', 'wandode', 'wyrcan', and 'weorod' once each.

In *Beowulf*, words beginning with 'b' occur seven times in nearby lines, with 'beorn' and 'Beowulf' twice each; they are found nearby twice in *Maldon*, with 'beorn' and 'bord' occurring twice:

0101 Byrhtnop mid *beornum*; he mid *bordum* het  
wyrcaþ þone wig-hagan and þæt weorod healdan

0130 Wod þa wiges heard, wæpen upp ahof,  
*bord* to gebeorge, and wip þæs *beornes* stop.

'G' is the initial letter of words occurring nearby six times, with 'guð' thrice, and 'God' twice. They are found twice nearby in *Maldon*, with 'guð' once, as quoted here, although the 'God' segment of 'Godwine' and 'Godwig' cannot be ignored. There is also a pleasing symmetry found in relation to 'wig' with 'Godwig' nearby.

0192 *Godwine* and *Godwig*, *guð* ne *giemdon*,  
ac wendon fram þam wige and þone wudu sohton,

0315 *god* on *greote*. A *mæg gnornian*  
se-þe nu fram þys wig-plegan wendan þenceþ.

'H' begins words nearby 16 times, with 'here', 'hwilum', 'halig', 'ham', and 'hilde' twice each. *Maldon* has words with initial 'h' five times in lines nearby to 'wig' occurrences, with 'healdan' twice and 'heard' twice — such a high rate in a relatively small portion of lines is in itself an attribute of a formulaic style.

### 'hand'

'Hand' occurs 23 times in *Beowulf* and six times in *Maldon*. It alliterates in the line on all but one occasion, with 'hilde' thrice, and with 'heard' twice.

'Heapolafe', 'hroden', 'hron', 'hige', 'heanne', 'hrof', 'hæpenes', 'hafen', 'helm', 'heal', 'Heorote', 'hreþer', 'harum', 'hræpe', 'hæðnum', 'Higelac', 'Hiorte', 'hean', 'hwile', 'gehwearf', 'geheold', 'Huga', 'heape', 'hedde', 'heafolan', 'hyne', 'heoro', 'hæfen', and 'hearpan' occur once each. In *Maldon*, 'hand' alliterates on four occasions, with 'hycgan', 'hyge', 'hwile', 'healdan', 'gehweðere', 'hyssas', 'hysses', and 'heals'. In *Maldon*, words have the initial consonant 'b' in the nearby lines twice:

0014 þa hwile þe he mid handum healdan meahte  
bord and brad sweord; beot he gelæste

0111 *Biter* wæs se *beadu-ræs*, *beornas* feollon  
on gehwæðere hand, hyssas lagon.

In conclusion, no emerging tendency can be found in *Maldon* for any of these four words to link with other words more predictably than in *Beowulf*. On a non-quantified level, the flexibility of the *Beowulf* poet can be sensed, and this is backed up to some extent by the formulaic attributes discussed in this section.

## **ANALYSIS OF FORMULISM IN BEOWULF**

*Beowulf* is comparatively free of formulaism; the poet seems to avoid obvious alliterations. There is no word alliterating on any primary word that has a higher proximity incidence than the five words chosen for each; this was how the secondary words were selected, by counting the number of occurrences. Alliterating words have a very low incidence rate with the primary word, just nine times out of the total of 50. This total of 50 is reached by the 10 primary words multiplied by the five secondary words.

Collocations point to formulaism when the frequency of the latter reinforces the former. 'Scield' collocates with 'guð' 44% of the time in *Beowulf*, and 29% of the time in the group. 'Beorn' collocates with 'land' 15% of the time in *Beowulf* and 13% of the time in the group; 'beorn' collocates with 'hild' 31% of the time in *Beowulf* and 11% of the time in the group. 'Sweord' collocates with 'ecg' at 22% in *Beowulf* and 18% in the group; 'sweord' is found collocating with 'heard' 24% of the time in *Beowulf* and 15% in the group. 'Hand' collocates with 'hild' at a 29% likelihood in *Beowulf*, yet just an 8% likelihood in the group. This latter instance is the sole example of apparent alliterative formulaism. The percentages — being the likelihood of a formulaic collocation occurring — are higher in *Beowulf* only those six times listed above, from a total possibility of 50 times. This points to a decided lack of formulaism.

The highest chance of formulaism due to collocations in the group is a 50% likelihood that 'staðol' will collocate with 'strang'. Note that not once in *Beowulf* does this occur. The lowest chance in the group is the 8% likelihood that 'hild' will collocate with 'hand'. However, this happens in 29% of occurrences of 'hand' in *Beowulf*. The highest chance of formulaism through collocation in *Beowulf* is a 44% likelihood that 'guð' will collocate with 'scield', whereas the group has a 29% likelihood for this collocation. The lowest chance in *Beowulf*, 0%, features 11 times out of a possible 50.

A remarkable difference between the group and *Beowulf* is demonstrated by these findings. When 'halig' as a secondary word collocates with 'scield', the group has a 24% likelihood of this occurring and *Beowulf* has a 0% likelihood, as there are just three occurrences of 'halig' in *Beowulf*. 'Halig' collocates with 'beorht' in the group 20% of the time, and in *Beowulf* not at all. 'Hild' was found to collocate with 'beorn' 11% of the time for the group and 31% of the time in

*Beowulf*. 'Folc' collocates with 'sweord' in the group at 24%, for *Beowulf* it is 4%. 'Hild' collocating with 'hand' is at 8% for the group, and at 29% for *Beowulf*. 'Hand' collocates with 'halig' at a 21% chance for the group and a 2% chance in *Beowulf*. 'Rand' collocates with 'folc' at 38% for the group, and at 6% for *Beowulf*; 'rand' collocates with 'werod' at 25% for the group and never in *Beowulf*. 'Rand' also collocates with 'wigend' for the group at 31%, and not once in *Beowulf*.

'Hild' collocating with 'beorn', and also 'hild' collocating with 'hand', is quite extraordinary. It is almost as if the *Beowulf* poet consciously and even deliberately used those secondary words near to 'hild'. These two instances seem to buck the trend. The other figures, by way of contrast, reveal a decided tendency by the poets of the group of 10 poems to use more formulaic collocations.

Regarding occurrences, some noteworthy examples include the primary word 'beorht' where the group of poems has 76 occurrences, but *Beowulf* has only 19 occurrences. 'Beorn' occurs 63 times in the group, but there are only 13 instances in *Beowulf*. 'Standan' appears in the group 68 times and in *Beowulf* 34 times. Only in the occurrences of 'rand' does *Beowulf* have more than the group, at 17 occurrences compared to 16 occurrences. 'Hild' is a fascinating primary word for comparative purposes, as both the group of 10 poems and *Beowulf* register exactly the same number of occurrences: 54. That makes the secondary words quite astonishing. With 'hæðen', the group collocates in 15% of cases, yet in *Beowulf* this word collocates in just 2% of cases; with 'folc', the group has a 22% rate, yet *Beowulf* just a 7% rate; and with 'gar' the group rates 15%, whereas *Beowulf* is at 0%.

## **ANALYSIS OF FORMULISM IN MALDON**

The suspicion that *Beowulf* is significantly less formulaic than the rest of the group of 10 Old English poems could possibly apply to *any* of the poems. That is to say, *any* poem might conceivably produce the same results as the survey of *Beowulf*. *Maldon* was surveyed in place of *Beowulf* by placing *Beowulf* in with the other nine poems to test that idea. *Maldon* was found to be much more like the group than *Beowulf* is, as the percentages are higher for *Maldon* than for the non-*Maldon* group. There are only six higher percentages for *Beowulf*. Nineteen times out of a possible 50, the percentages are higher for *Maldon*. Hence, *Beowulf* has a 12% likelihood of formulaic collocation occurring, but *Maldon* has a 38% chance. That is more than triple the likelihood.

The circumstance under which the group percentages are higher is when the secondary word has no occurrences in *Maldon*. That is, 25 times, including when 'beorht' and 'strang' are primary words, as they do not occur in *Maldon*. Only 11 times does *Beowulf* not have secondary word occurrences.

When 'scield' is the primary word and 'guð' the secondary word, the percentage of likely collocation for the group is 35%, and for *Maldon* it is 33%. 'Wig' as the primary word and 'hild' as the secondary word produces 19% for the group and 10% for *Maldon*. When 'hand' is the primary word and 'hild' the secondary, the group is at 18% and *Maldon* is at 17%. When 'standan' is the primary word and 'god' the secondary word, the group is at 17%, and *Maldon* is at 7%. 'Standan' as primary word and 'mod' as secondary word produces a likelihood of 14% for the group and 13% for *Maldon*. Contrast those five times listed above, with the 33 times that the group is higher than *Beowulf*.

To summarise occurrences, 'scield' occurs 23 times in the group, and thrice in *Maldon*. 'Beorn' occurs in the group 61 times and in *Maldon* 15 times. The group has 76 occurrences of 'sweord' and *Maldon* has just six occurrences. 'Hild' is in the group 99 times and in *Maldon* nine times. 'Wig' is to be found in the group 72 times and in *Maldon* 10 times. *Maldon's* six occurrences of 'hand' are overshadowed by the group's 94 occurrences. 'Rand' is found once in *Maldon* and 32 times in the group. 'Standan' occurs 87 times in the group and 15 times in *Maldon*. 'Beorht' and 'strang' do not occur in *Maldon*, but all 10 words are in *Beowulf*.

It is remarkable that despite the much fewer occurrences in *Maldon*, there are still higher percentages. However, it must be remembered that *Maldon* is only 325 lines long. *Maldon* cannot be compared in a similar fashion to *Beowulf*. An example of this is that 'hild' has the same number of occurrences in both poems, and that 'rand' occurs in *Beowulf* 17 times and in the group 16 times. There is a notable tendency on the part of the *Maldon* poet to favour some words. He uses 'beorn' 15 times, one-quarter of the number of times it is used in a group of poems with a combined line count of 9766 lines. In other words, *Maldon* is merely 3% the length of the group of poems, so it is remarkable that it has such a high frequency of the primary words.

## **ANALYSIS OF FORMULISM IN EXODUS**

Editors have frequently commented on the epic poem *Exodus*, and in particular on its lexical oddities. One scholar and editor, Roberta Frank, has even argued that the vocabulary of the poem, and especially its metaphorical compounds, is influenced by skaldic poetry. The results in the previous section showed that *Maldon* is much more like the group than is *Beowulf*. The hypothesis was examined in relation to the poem *Exodus*. The percentages are higher for *Exodus* than for the non-*Exodus* group, 19 times out of a possible 50.

Remember that there are only six higher percentages for *Beowulf*. Hence, *Beowulf* has a 12% likelihood of formulaic collocation occurring, but *Exodus* has a 38% chance. That is more than triple the likelihood, and the same as for the analysis of *Maldon* with the group of 10 poems.

The group percentages are higher when the secondary word has no occurrences in *Exodus*. That is 28 times, including 'strang' as a primary word which does not occur in *Exodus*. That phenomenon can be partially explained by the differing subject matter of this poem, and hence the differing vocabulary. Only 11 times does *Beowulf* not have secondary word occurrences. When 'rand' is the primary word, and 'folc' the secondary word, the group has a 23% chance of collocation, and *Exodus* has a 14% chance. When 'cyning' is the secondary word, the group is at 23%, and *Exodus* is at 14%. There is one equal ranking, when 'standan' is the primary word and 'beorn' the secondary word, then both the group and *Exodus* have an 11% chance of collocation. Contrast those two times, with the 33 times that the group is higher than *Beowulf*, and the five times that the non-*Maldon* group is higher than *Maldon*.

There is also in *Exodus* the high likelihood when 'werod' occurs twice in collocation with the single occurrence of 'sciold', as opposed to thrice collocating with the 25 occurrences in the group.

To discuss occurrences next. Note that 'strang' does not occur in *Exodus*, but all 10 words are in *Beowulf*. 'Sciold' occurs in the group 25 times and in *Exodus* once; 'beorht' is in the group 90 times and in *Exodus* five times. 'Beorn' is in the group 73 times and in *Exodus* thrice; 'sweord' occurs 80 times in the group and twice in *Exodus*. The group has 101 occurrences of 'hild' and *Exodus* has just seven occurrences. 'Wig' is in the group 76 times and in *Exodus* six times. 'Hand' occurs in the group 88 times and in *Exodus* a round dozen times. 'Rand'

is in the group 26 times and in *Exodus* seven times; 'standan' appears in the group 93 times and in *Exodus* nine times. It is remarkable that despite the much fewer occurrences in *Exodus* yet there are still higher percentages — although it must be remembered that *Exodus* is only 590 lines long.

Note the tendency of the poet to favour some words. An example is that seven times he uses 'rand', which is 27% of the amount used in a group of poems with a combined line count of 9766 lines. In other words, *Exodus* is 6% the length of the group, so it is remarkable that it has such a high use of the primary words. Other examples are 'hand' at a 14% chance of use and 'standan' at 10%.

## **SUMMARY AND CONCLUSION**

The hypothesis has not been proved on the basis of results so far. The proximity surveys do not support the hypothesis that Old English poetry was composed by a combination of natural spreading activation plus learned poetic routines. The surveys suggest that poets actively suppressed the tendency for a given word to 'adhere' or associate on to other alliterating words. The tendency in this direction is especially marked in *Beowulf*. High rates of collocation were predictable in the abstract, but definitely needed to be established on a quantitative basis.

The results are related to the context of the poems, in that there is more religious imagery in religious poems, and use of battle-themed words in battle poems. The argument is strengthened as the variations are not found to be the same. Alliterating words do not necessarily have a high incidence with a primary word — there is no word alliterating on 'beorht' that enjoys a higher proximity than the five, none of which are potentially alliterative on the primary word. This strongly suggests a tendency on the part of the poets to avoid obviously chiming alliterations. Variation might have been cultivated more in alliterating words than in other potential collocates.

Collocations within the line have not been shown to co-occur with collocations over two, three, or even four lines with some frequency, as predicted by Quirk. A technique for avoiding outright formulism, the collocations still retain the mental stepping stone that underlies the formulism.

*Beowulf* is shown to demonstrate a distinct and impressive lack of formulism. In terms of composition, the *Beowulf* poet avoids, for example, 'hild' leading to 'hand' within a line too often, lest the poem seem overly mechanical. Rather, the poet employs a more veiled pattern, where the one word can lead to the other over a somewhat longer word-span. This results in the poet being freed to use the same basic collocation more often. There are very few clear instances of any avoidance. The main pathway from word to word in the poems was via the semantic network. Thus if we hear of 'man' we might next hear of 'God' or 'Grendel' — two entities that are opposite *in meaning* to 'man' in some way. This is like the association between 'good' and 'bad' in modern English.

Further exploration of Old English poetic texts is likely to uncover further examples of associations of the 'chalk and cheese' type in the poetry. Of course, word did lead to word via alliteration. Aside from the metrically required alliteration, 'extras' are often found within the line and in surrounding lines, especially in *Maldon*.

## **APPENDIX: DETAILS OF ELECTRONIC TEXTS**

This study was made possible through the use of electronic texts comprising the 'Labyrinth Library of Old English' available from Georgetown University ([www.georgetown.edu](http://www.georgetown.edu)). The following appraisal of the veracity of the electronic texts was written by Duncan Macrae-Gibson of the University of Aberdeen, and accompanies the texts on the Georgetown internet site:

This file was originally prepared by Greg Hidley, from a collation of an early form of the electronic text of the OE corpus held by the Dictionary of Old English with the printed text of the Anglo-Saxon Poetic Records. The present revision rests primarily on a computer comparison with files representing the latest available update kindly made available by DOE. This has been supported by as much visual checking against the printed text, and in some cases other editions and facsimiles, as time has allowed, and where this brought to notice fuller information about manuscript readings it would have seemed foolish not to incorporate it. Finally the text has been rechecked against OCR scans of the printed text procured and scrutinised by Pat Bethel, and against her notes of discrepancies between the scans and her copies of the DOE files. The result should be a very much more reliable text than the original one; it does not purport to be a re-edition, however. The codex numeration accords with the ASPR volume number. The base texts were originally created from Oxford Text Archive text U-1936-C which was deposited by O.D. Macrae-Gibson ([enl011@aberdeen.ac.uk](mailto:enl011@aberdeen.ac.uk)), Departments of English and Computing Science, University of Aberdeen. Conversion to HTML by Tony Jebson ([aj@wg.icl.co.uk](mailto:aj@wg.icl.co.uk)), International Computers Ltd, Manchester.

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