The Transmission of "The West Saxon Royal Genealogy": a Phylogenetic Approach.

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ABSTRACT

We present a case study in the application of phylogenetic and other computational analyses to an Old English textual tradition. We chose the West Saxon royal genealogy for investigation because there are interesting problems in ascertaining the transmission of the text. We present a concise, up-to-date account of the manuscript tradition, a summary of the scholarly literature including current debates, and discuss phylogenetic and other analyses used to explore the tradition. We show how the results from phylogenetic analysis are consistent with interpretations advanced by scholars based on traditional methods of textual criticism. We also suggest a new textual grouping not mentioned before in the literature, and thus offer a new insight into this tradition. The suggested textual relationship finds support on historical and palaeographical grounds, and on that basis, we postulate the existence of a lost eleventh-century exemplar from Canterbury. The value of this paper therefore lies in two main directions: firstly, we demonstrate the value of employing a combination of phylogenetic and other computer-based analysis methods with an Old English tradition; and secondly, we offer a striking new insight into the transmission and textual history of an important medieval English text.

INTRODUCTION

The West Saxon royal genealogy is a significant early source of information for the history of early kings of England. The text has been transmitted by several medieval witnesses. It has been repeatedly printed and studied by generations of Anglo-Saxon scholars.[1] However, discrepancies emerge between modern scholarly accounts about certain aspects of the text's transmission. Questions arise, which remain unsolved today, about when and where it was written and particularly how its text underwent change as it was copied by later scribes. Because of such questions connected with the textual transmission, we selected the genealogy as a good candidate for applying phylogenetic analysis. We wished to produce a concise, up-to-date account of the manuscript tradition, because recent scholarship had left the question of the relation of the extant texts in some confusion. We also wished to apply phylogenetic analysis to a text in Old English, since that has not been done before, to our knowledge. Our findings, using three kinds of analysis (see the Methods Section), were highly instructive. We were able to demonstrate the value of the approach for this type of material by showing that, not only does phylogenetic analysis produce results broadly in agreement with conclusions arrived at by traditional methods, but also that, by indicating a new textual grouping not seen before in the literature, it can offer significant new insight into an ancient manuscript tradition.

The Supplementary Material file gives full information on five additional Supplementary files (S1 – S5) associated with this paper.

THE MANUSCRIPT TRADITION

While its origins are obscure, such was the need in the late-ninth century for a brief written account of King Alfred's ancestry and the history of the West Saxon kingdom, that a clearly identifiable text, perhaps in the form of a single-sheet document, was put

into circulation. The structure and purpose of such a document has been summarised by Professor Dumville (1986):

> Reign-lengths, statement of the kings' blood-right to rule, and two pedigree-statements displaying the descent of Æthelwulf from Cerdic, the dynastic founder, and of Cerdic from Woden, the source of Anglo-Saxon royalty, comprise almost the whole of the Genealogical Regnal List.[2]

The archetype is lost; and the work was transmitted anonymously, without any details of author name or title. However, because no text reports any reliable medieval ascription of title, and because modern scholarship has been unable to assign a reliable standard title, we follow Professors Gneuss and Lapidge (2014) in calling it the West Saxon royal genealogy (= WSRG). Put together out of older written sources, the earliest observable evidence points to Wessex, during the reign of Alfred the Great, 871-899, as the place where the main line of transmission originated. Such a text, in the forms that seem closest to the original, combines two older genealogies of West Saxon kings (Cerdic to Woden and Æthelwulf to Cerdic),[3] with a regnal list for Wessex,[4] conflated with some extracts from old laws and historical texts, which doubtless all emanated from the same body of disparate texts forming the archival heritage of the West Saxon kings and royal government.

It has proved impossible to determine the original author, but the work of compilation can be safely assigned to Alfred's reign. And although no obvious or direct evidence can be shown connecting the WSRG with Alfred's scheme to make the most important books available to his people in their own language, all indications tend to confirm that view. In the earliest state of the text, the work continues through to the

reign of Alfred, and there it stops (this forms the core region of text for our analyses). This suggests that the WSRG writer stopped at this point because he could go no further, which in turn suggests that the composition had taken shape already during Alfred's reign. Additionally, there are palaeographical indications based on the earliest known manuscript (**BL23 -** the Appendix lists the sigla assigned to each of the manuscripts). This witness is written in a variety of late Anglo-Saxon pointed minuscule, which has been assigned to Wessex in the last quarter of the ninth century. Taking evidence from the text and from the palaeography together, a presumption is created that is enough to sustain a view that the text was written during Alfred's lifetime, probably at Wessex. For these reasons, we suggest that the WSRG may be recognized as a unique and distinctive product of Alfred's reign: a significant 'Alfredian' text, in its own right.[5]

We next consider the principal manuscripts. Besides a few late and indirect sources of transmission (of which there are two medieval abstracts; and several antiquarian transcripts and editions dating from *c*.1560 to the present), whose testimonies furnish us with no primary textual evidence (and are of no text-critical value), there are seven direct sources of the WSRG (The Supplementary File S1 is an inventory of the surviving manuscripts). The manuscripts, copied between the late-ninth century (**BL23**) and the first half of the twelfth (**TR35**), are datable as follows: two from the ninth century, one from the tenth, two from the eleventh, two from the twelfth. Thus, the tradition neither contracts nor expands to any great degree and spans a period of roughly three hundred years.

The oldest extant source for the text is the witness given the siglum **BL23**. This detached partial leaf had been re-used as binders' waste in early modern times. It was orphaned from the bindings of an unknown printed book in the collections of the (then) British Museum.[6] As we have described earlier, the text of **BL23**, which is incomplete,

has been dated on the evidence from script and text to the last quarter of the ninth century. On this account, it may be fairly said that **BL23** represents the earliest state of the text, written soon after the WSRG had achieved its final form. The texts copied with **BL23** are chronological and computistical in nature, consisting of a set of Latin verses for finding the date of Easter, a note on the rising of the moon, and a fragment of the *Old English Martyrology*: 'the natural context' for such a work, according to Sisam (1953).[7] Though brief, the testimony of **BL23** is invaluable, for its variants seem to show that its text stands apart from all the other witnesses. Further, it may be noted that **BL23** bears indications of a degree of influence of, if not copying from, an exemplar written in non-West Saxon, but perhaps Kentish, dialect.[8] The lower part of the leaf contains some unique and significant pre-Conquest genealogies of East-Saxon kings. The upper-part of the folio has two lines of roman numerals, which are additions by a later hand.

We next look at a clearly defined group of texts (**C173-BL34** and **CTA3**), whose members form a textual family by virtue of an historical association with copies of the Anglo-Saxon Chronicle (= ASC). All these witnesses were at one time or another bound with manuscripts of the Chronicle and so might be considered as belonging to the body of paratextual materials closely connected with its history. This group of texts, to judge from the resemblances of text and context, may ultimately derive from a common ancestor of late-ninth century date, which is now missing. The earliest of this Chronicle family is the text we call **C173**. This witness prefaces a Chronicle manuscript (called ASC MS A by editors) and is continued in the same handwriting down to Alfred, where its text ends.[9] The co-terminus of **C173** with the first observable break in the scribe's writing of the ASC MS A would also suggest that this witness was likely written before the date when Alfred died (d. 26 October 899). Such a claim based on textual evidence may be strengthened by palaeographical considerations, namely, the style of the square

capitals used for headings and enlarged letters, as well as the early type of Anglo-Saxon square minuscule script used for the body of the main text. The second witness in this group, **BL34**, which scholarship has established is a direct transcript of **C173**, was copied at Winchester in or after 1001 and, just as **C173**, is continued down to Alfred. Again, just like **C173,** the text of **BL34** prefaced a Chronicle manuscript (called ASC MS G by editors), before it became detached in or before the year 1621. The third text, **CTA3,** which, besides minor scribal variations, resembles **C173**, with the obvious difference in that its text has a long, unique tail down to Edward the Martyr, king of England, 975-978, not found in other manuscripts. Like **C173-BL34**, the copy of **CTA3** was originally bound with a Chronicle manuscript (called ASC MS B by editors) but was excised in or before 1612. The witness **CTA3**, which occupies a single folio, originally followed the annals in ASC MS B. Both the annals in ASC MS B and the WSRG text are written in the same script throughout. The co-terminus of **CTA3** and ASC MS B, which ends in 977, suggests that the whole work was written between 977-979, at some unknown southern English writing centre. The localisation of this Chronicle manuscript has been the subject of great debate. It is commonly said to be Abingdon but on insufficient grounds.

Turning aside from the texts associated with the Chronicle, we now consider another interesting association, of the Old English translation of Bede's *Historia Ecclesiastica Gentis Anglorum* (OE Bede) with the WSRG. This historical collocation is interesting in view of the links both works have with the reign, if not with the figure, of King Alfred, with whose scheme of mass translation and book production the OE Bede has long been connected.[10] The principal surviving witness, given the siglum **ULK3**, carries a complete form of the WSRG text, ending as it does with Alfred's reign.[11] The origin of the manuscript, in which **ULK3** is found (called Ca by editors of Bede), has been ascribed to Worcester, where it was written at the end of the eleventh century by a

single identifiable scribe (by name of Hemming, monk of Worcester, *fl. c*. 1095), whose handwriting has been detected in at least five manuscripts and a charter of known Worcester provenance.[12]

The form of WSRG-text witnessed by **ULK3**, though ultimately it may derive from a (now lost) tenth-century ancestor, is independent of the form of text reported in the ASC-text branch. Its text begins after Bede's Preface, and is followed by the *capitula* for the first book of the *Historia Ecclesiastica* – as if it formed part of the running text – although it is unlikely to have formed part of the Old English translator's original.[13] In an important recent study Waite has shown how another lost exemplar, which he calls S, carried a text similar to that witnessed by **ULK3**.[14] The testimony of S, destroyed by fire in 1731, can be inferred from variant readings John Smith entered in the British Library copy of the 1644 reissue of Wheloc's Bede edition (shelfmark 698.m.6).[15] Though its variants are excluded from the present study, the testimony of Waite's S is invaluable as much for its age – being the oldest source for the OE Bede branch – as for its similarity in text and layout to **ULK3**. Just as **ULK3**, witness S was attached to a copy of OE Bede, collated into the Preface before the list of chapter headings. That the WSRG-text appears in the same position in both manuscripts seems decisive for their common ancestor, in which Bede's Preface-WSRG probably was transmitted as a distinct textual unit, which had originated indepedently of the OE Bede. Textually, so far as one can judge from Smith's variants, S was derived not from **ULK3**, but from their postulated ancestor (called Z by Whitelock; and Y by Waite), of which another independent copy survives in Oxford, Corpus Christi College, MS 279 B.[16] In the light of these observations, further detailed study of Waite's S seems to be warranted as a potentially important source for the textual history of the WSRG.

Finally, we consider the latest, pre-Dissolution witnesses, whose copying into

legal manuscripts is highly significant given the WSRG is so prominent in association with English legislative texts.[17] The first of these witnesses is what we refer to as **C383**. This manuscript belongs to the large class of what Professor Wormald has called 'legal encyclopaedias', of which **TR35** is another example.[18] Such vast collections of Old English legal works were put together out of building blocks of mini-collections of laws which were circulated independently of one another. The collection where **C383** is found was either made at, or transferred to, St. Paul's, London soon after *c.* 1100, where the WSRG text was added to folio 69v, which was originally blank, along with corrections to the bulk of the collection.[19] The work of correction would bring **C383** into line with alterations found in other twelfth-century lawbooks, most notably **TR35**. The witness identified as **TR35** is the famous *Textus Roffensis*, written at Rochester, during the episcopacy of Ernulf, bishop of Rochester, 1123-1125.[20] The WSRG text is entered among a group of related texts, of apparent Canterbury provenance, including Anglo-Saxon laws, lists and genealogies. The copy of the WSRG occurs on folios 7v-8v, at the head of the laws of Alfred, but its text has been extended ending with a long, unique tail to Æthelred the Unready, king of the English, 978-1016.[21]

We conclude this section by offering a summary of the manuscript relations in the existing literature, to facilitate comparison with previous work on the subject.[22] The received view of the tradition was propounded by Napier (1897), who argued that the extant manuscripts derived from an original, of which an independent copy survives in **BL23**, and W, X, Y and Z are postulated exemplars of the four branches through which all other manuscripts were copied or derived. Napier's account of the development of the text was adopted substantially by Hackenberg (1918), who edited the text taking **C173** as his text-base. The same view of the tradition was accepted by Sisam (1953) who offered some important further arguments in support of the textual relationships

hypothesised by Napier**.** However, a recent attempt to interpret the manuscript evidence by Dumville (1986), particularly that of **BL23**, has prompted scholarly debate.

Radically different stemmata have been proposed, based on differences of opinion as to the nature and cause of variant readings attested among the manuscripts: the omission of the details of Cenred's family from **BL23**, found in all other copies of the WSRG-text; the indicative error (Leitfehler) *Celm* for *Celin*, found in all copies of the WSRG-text, except for **BL23**; the variant recording of the length of Centwine's reign, *VII* in **C173**, **BL34**, as against *IX* (rightly) in **CTA3**, **ULK3**; the addition of names *Creoding, Creoda* in Alfred's pedigree, found in **BL23, CTA3**, **ULK3**, as against in **C173**, **BL34**; the omission of Ceaulin's reign **C173**, **BL34**, as against all the other WSRG-texts; and the omission of the names *Esla, Esling*, found in **ULK3, C383, TR35,** as against **C173**, **BL34**, **CTA3**. The above is a selection of key variants, it would not be helpful to list them all.[23] But the questions raised by such differing views of the tradition held by modern scholars are challenging for our understanding of the history of the WSRG.

PHYLOGENETIC ANALYSIS

Phylogenetic analysis methods were developed in the biological sciences to allow the inference of the evolutionary histories of groups of organisms using biological sequence data, such as DNA or protein sequences.[24] Errors (or mutations) in the sequences are inherited from one generation to another, accumulating over generations. These inherited errors can be exploited, using computer-based algorithms, to develop phylogenetic trees indicating the evolutionary relationships among a group of related organisms. This inheritance of errors is similar to the transmission of textual changes during repeated copying of a text by scribes, and the inheritance of textual variants has long been utilised to allow the derivation of stemmata that indicate the transmission

histories of textual traditions.[25] Computer programs have been developed that can create phylogenetic trees using far greater amounts of variant data than could possibly be analysed manually[26] and, in collaborations between scientists and textual scholars, these programs have been applied to the analysis of a diverse collection of textual datasets ranging from an old Norse narrative (Robinson and O'Hara, 1996), and Chaucer's *Canterbury Tales* (Barbrook *et al.*, 1998), to Dante's *Monarchia* (Windram *et al.*, 2008), the poetry of Robert Herrick (Windram *et al.*, 2013), the Finnish legend of St. Henry (Roos *et al.*, 2006) and the German narrative *Parzival* (Stolz, 2003). Phylogenetic analysis has also been used in linguistic studies (Gray *et al.*, 2009), with music textual traditions (Windram *et al.*, 2014) and with suitable cultural artefacts e.g. ethnic carpet patterns (Tehrani and Collard, 2002), where variants are transmitted from one generation to the next.

DATA PREPARATION

The data for the WSRG was supplied as a set of seven 'diplomatic' transcripts of the key manuscripts made from high-quality digital photographs, which were then compared against the originals (The full diplomatic transcriptions are given in the Supplementary data (**File S2**) with a note on editorial conventions). A number of tools exist for 'collating' texts to allow alignment and identification of positions of variation among texts. They include CollateX (Dekker *et al.*, 2005), and tools developed jointly at the University of Birmingham and the Institut für Neutestamentliche Textforschung, Münster.[27] Here, we used a multiple alignment program, derived from a computer program developed for aligning biological sequence data, with pre-defined alignment blocks of text to create a collation where each row represented a manuscript, and each column/site represented a word in the text (Spencer and Howe, 2004). The aligned data consisted of a core region of text that was present (at least in part) in all sources,[28] and

two unique large 'tails' of material present in **CTA3** and **TR35**.

The collated text was then regularised to remove from the collation any variation not considered to be informative, such as spelling variation, which may reflect scribal preference or dialect differences in scribes of the period rather than substantive variation in the text. According to Bordalejo, 'Variants are regularized and aligned to produce a better apparatus: one that is both more readable, presenting the information as clearly as possible, and gives the most effective representation of variation at each point for phylogenetic analysis.' (Bordalejo and Vázquez, 2021). For the WSRG analysis, the regularisation was performed according to the following scheme (the symbol > denotes 'changed to'):

- Capitalisation was removed; all uppercase or enlarged letter-forms used for proper nouns, names, and other idiosyncratic or inconsistent usage were removed.
- Punctuation was removed; all punctuation, scribes' pointing, accentuation, and other paratextual marks were removed, 'for they are not real variant readings and can occur independently during the copying of a text.' (Guillaumin, 2020).[29]
- Columns were inserted to indicate locations where the word order differed in one or more texts and the words were then replaced in their standardised order. This is a standard procedure to allow word rearrangement to be treated as a single change, even though more than one word may be involved.
- Abbreviations were expanded to indicate the full word (e.g. *þ* with an oblique cross-stroke through the shaft > *þæt* at Col. No. 64, 78, etc.; common suspensions in final position *wealū* > *wealum* at Col. No. 73*; þā* > *þam* Col. No. 136, 244, etc.*; frā* > *fram* at Col. No. 6); but the abbreviation '7' has been retained throughout.

- Letters were inserted to restore letters or parts of words which were missing due to accidental loss and could be safely conjectured.[30]
- Spellings were regularised, except where the differences were considered to indicate a new variant reading.[31] Where differences of spelling do not affect meaning, we regularised according to the following scheme:
    - Graphical habits were regularised according to context and function (e.g. the graphs *ę* > *æ* at Col. No. 46, 47, 159 etc.; *ẏ* > *y* at Col. No. 93, 158, 164 etc.; and mostly but not always the graph *ð* 'eth' > *þ* 'thorn', at Col. No. 14, 54, 55, etc.).
    - Columns were inserted (or removed) between words or parts of words to indicate common word divisions (e.g. *onwealum* > *on wealum* at Col. 72-3; *ge eodon* > *geeodon* at Col. 60, 74, 480; *west seaxna* > *westseaxna* at Col. 61, 70, 181, etc.) such as may be expected in a modern critical edition.
    - Inflexional variations were regularised (e.g. *winter* > *wintra* at Col. 193, 271; *wintra* > *winter* at Col. 285) based on a consensus of readings in other manuscripts.
    - Common spelling differences were regularised to indicate solely the 'lexical intention' of the scribe,[32] (e.g. obvious misspellings were regularised *ceolfwulf* > *ceolwulf* at Col. 147; *woldening* > *wodening* at Col. 48; alternative forms of spelling the same word were regularised *ymbe, embe* > *ymb* at Col. 51; *westseaxena*, *westseaxana*, *westsexna* > *westseaxna* at Col. 61, 70, 181, etc.; *cinric* > *cynric* at Col. 17, 409, 410; *brand* > *brond* at Col. 45; or *beldæg* > *bældæg* at Col. 47).[33]
    - Where a spelling occurs in at least two of the witnesses, and that spelling seemed to be more contrastive, very occasionally we treated the word as a

new variant (e.g. *friþugaring, friþugar* at Col. 42-3 as against all other manuscripts).[34]

- Columns containing a mixture of Roman Numerals and written-out numbers were regularised to indicate solely the 'numerical intention' of the scribe.
- Clear errors of alignment were corrected.

This resulted in a matrix consisting of 7 witnesses x 927 columns, with columns 1-480 representing the regularised core data to be used for the computer-based analyses (see Fig. 1 for a section of the alignment) and columns 481-927 representing the two unique tails. Several manuscripts contained small gaps within the core region of text, but two large omissions occurred, as a result of actual physical loss (lacunae) in the manuscripts:

- **BL23** – columns 1-352 omitted
- **C383** – columns 231-480 omitted

There is therefore no common material for these two sources.

<Fig. 1. A section of the aligned regularised text of WSRG.>

The full aligned and regularised data is given in the Supplementary data (**File S3**). The aligned collation was then converted into Nexus file format (see Maddison *et al.*, 1997) with each variant in a column represented by a different numerical symbol (see Fig. 2). In this procedure, the reading in the first aligned text may be scored as '0', and subsequent variant readings in the column will be recorded as '1', '2' etc. Any texts with identical readings are coded with the same number.

<Fig. 2. The section of Nexus file data corresponding to the section of the aligned text shown in Fig. 1. The use of '?' and '–' symbols is explained below.>

The full Nexus File is given in the Supplementary data (**File S4**). All omissions or deletions were coded in the Nexus file, with the first missing character represented by the gap symbol. The gap symbol (-) is included as a valid character state in the

phylogenetic analyses used in this study. Where the missing data continued for more than one column/site, the remaining locations were coded as '?' to indicate 'missing data'. This missing data symbol does not count as a variant and is ignored by the computer algorithms. This reflects the fact that most individual omissions are really single events caused, for example, by eye-skip, or lacunae, as in cases mentioned above, and so should only be counted as a single difference regardless of length. The columns and rows of the Nexus file tally exactly with those of the regularised collation (see Figs. 1 and 2), and the Nexus file can be used directly in the phylogenetic programs.

METHODS

Phylogenetic Analyses

The phylogenetic methods were developed for use in evolutionary biology, with DNA or protein sequence data. The methods also produce 'evolutionary trees' with other strings of data such as texts. Several methods are typically used with textual data (see Windram and Howe, 2014), and these broadly fall into two categories of 'distance-based' or 'character-based' methods. Character-based methods such as Maximum Parsimony (MP) use information from individual characters to create tree topologies. The Maximum Parsimony approach considers (in principle) all possible bifurcating trees and identifies the tree topology requiring the smallest number of changes. It is more parsimonious to consider that a single change occurring in several manuscripts or strings of DNA is the result of one change, which was then copied, rather than multiple independent identical changes. In this way, the various species (often referred to as 'taxa' in biological analysis) or manuscripts are grouped according to their shared derived characters. Distance-based methods such as Neighbor-joining and NeighborNet create a distance matrix indicating the proportion of sites at which taxa differ from each other. This information is used to determine the tree topology that best represents the matrix of

differences for each pair of taxa. Distance methods are somewhat compromised where two taxa (either texts or species) have no common data, as it is not possible to compute a complete and realistic distance matrix and the results from such analyses may be unreliable. As this is the situation with which we are presented with the WSRG data, only the analyses from the character-based maximum parsimony analysis are presented. The WSRG data was analysed using the Maximum Parsimony (MP) program from the *Phylogenetic Analysis Using Parsimony* (PAUP*) package (Swofford, 2001). The analysis included bootstrapping, to give a measure of statistical support for the tree structure generated (Felsenstein, 1985). Bootstrapping is a resampling technique, which uses a large number of replicate datasets (in this case 1,000), generated from the original dataset by a random sampling method with replacement. A phylogenetic tree is generated for each dataset and the results are represented as a consensus tree, showing only manuscript groupings supported by at least 50% of the individual trees. As a general guide, in biological analyses, a bootstrap support value of more than 70% is considered to indicate that a particular phylogenetic grouping is well supported (Hillis and Bull, 1993). The phylogenetic trees are unrooted and so give no indication about the location of the origin of the tradition within the tree.

Other Methods

The following methods were used for studying the relationships between pairs of witnesses in more detail.

Maximum chi-squared analysis

This method is based on a statistical method for identifying sites of DNA recombination (Maynard Smith, 1992). This is a process in which two versions of the same gene (section of DNA) are broken and then rejoined at equivalent sites, to generate a hybrid molecule, with the first part derived from one of the original molecules, and the

second part from the other molecule. This is clearly analogous to a change of exemplar and the algorithm may be used to look at a pair of texts to identify a possible site where a scribe may have switched from one exemplar to another. The algorithm compares the expected distribution of differences if there is no recombination/exemplar change with the distribution seen in the two taxa being assessed, and the chi-squared values can be plotted for each site in the dataset. The maximum chi-squared (peak) value occurs at the location where the discrepancy between the observed and the expected number of differences is greatest, and this indicates the most likely breakpoint or point of exemplar change. A probability value (P) may be determined for each pairwise comparison, and the threshold for statistical significance of the P value is determined by the Dunn Sidak method (Sokal and Rohlf, 1995), and is dependent solely on the number of taxa/manuscripts in the tradition.[35] The result is considered to be of statistical significance if its associated P value is *less than* the specified threshold value. However, even if the P value for a comparison is higher than the threshold, it may offer interesting qualitative information.

Percentage of Differences

This method is usually used alongside the maximum chi-squared analysis (Windram *et al.*, 2005). A window of chosen size (fifty-one sites proved optimal for the core WSRG data – it has to be an odd number – approx. one tenth of the length of the Nexus file is usually the best) is moved along the data sequences for any pair of manuscripts, and the number of locations where a difference occurs recorded as a percentage of the total number of sites in the window. This percentage of differences is then plotted against the number of the site at the mid-point of the window, showing clearly how the percentage of differences varies along the length of the two sequences.

The plot may be of value to show general trends, even where a maximum chi-squared peak is not considered to be statistically significant.

RESULTS

The complete core region of the dataset (col. 1-480) was analysed using Maximum Parsimony (see Fig. 3).

<Fig. 3. The MP tree for the complete core region of WSRG tradition. The figures written on the branches represent the bootstrap support percentage for each grouping. The branch lengths are proportional to the number of substitutions inferred (as shown in the scale bar).>

Maximum Parsimony uses only the columns that are 'parsimony informative' (PI). These are sites where there are at least two different readings, both of which are present in at least two of the manuscripts. Out of the 480 sites in the core region, only twenty-eight are PI and 380 are constant - a table of the PI sites is given in the Supplementary data (**File S5**). However, these PI sites are sufficient for the algorithm to indicate various well-supported groupings of the manuscripts and the Consistency Index (CI), which gives a measure of how well the characters at the individual sites fit the phylogenetic tree, is 0.931 (a maximum CI value is 1.000) for the full MP analysis, which indicates that the data is largely consistent with this tree topology.[36] Sources **C173-BL34** form a pairing that is very strongly supported (100%). A strongly supported grouping where one witness has a very short individual branch, indicating the presence of only a few variants that are not shared also with its pair, is typically found where the short-branch witness (i.e. **C173**) serves as exemplar for the longer-branched witness (**BL34**), which preserves most of the variants found in its exemplar plus a number of additional variants that are unique to that source. This is consistent with the historical interpretation of the relationship between these two sources. There seems to be some

indication of linkage of the other Chronicle-associated text, **CTA3,** with this pair, although this linkage is supported at only 66%. There is a separate pairing of **TR35-C383** (70% support), and this linkage is of considerable interest and deserves further exploration. **C383** only preserves text that spans sites 1-230 of the alignment, but this region includes 21 of the 28 PI sites which provide the information for the construction of the tree. An investigation of the aligned region of **TR35-C383** shows agreement of text in three kinds of shared variation: *(a)* omissions; *(b)* additions; *(c)* and differences of reading;[37] and, although less significant for determining textual affiliation, agreement in the form of shared orthography, notably proper names (note - these spelling variants are regularised and so not included in the phylogenetic analyses). A grouping of **BL23** and **ULK3** is supported at 65%, however, as **BL23** is only represented for the final 128 sites of the core region, containing only 6 of the PI sites, this grouping is uncertain.

An examination of the PI sites in the aligned text of the core region can give an indication of the kinds of variant which contribute to the groupings apparent in the tree. Of the twenty-eight PI sites, fourteen occur at locations where at least two manuscripts share a gap, and in the other manuscripts at least two share identical variant readings. Such locations occur e.g. in column 10 where **C173- BL34** witnesses have the additional word 'wintra'. Similarly, in columns 32-36, three manuscripts (**C383**, **TR35** and **ULK3**) have 'elesing elesa gewising' while three other manuscripts (**C173- BL34, CTA3**) have two additional words and read 'elesing elesa esling esla gewising'. Such insertions/deletions would normally be considered unlikely to have happened more than once independently (though Anglo-Saxon genealogies are perhaps liable to a greater degree of scribal variation, due to the high degree of repetition, mechanical errors of copying, as well as ideological intrusion, revision or interpolation) so such sites can be indicative of relationships. Two of the PI sites occur at locations where we added

in a new column to represent, for example, a word move, while twelve of the PI sites contain at least two different textual readings.

In order to gain some insight into whether the sources were similarly related throughout the length of the text, the core dataset was then split into two halves (col. 1-240 and col. 241-480) for further MP analysis. The bootstrap MP trees for the two halves are given in Figs. 4a and 4b. When working with the first half of the data it was necessary to exclude **BL23,** which has no text in the first half of the core text. Similarly, it was necessary to exclude **C383** when working with the second half of the text.

<Fig. 4. MP bootstrap trees for 4a) the first half (col. 1-240) of the core dataset, with BL23 excluded and 4b) the second half (col. 241-480) of the core dataset with C383 excluded.>

In the tree for the first half of the core region (CI=0.820), the lack of **BL23** leaves **ULK3** ungrouped. There is still strong support for **C173-BL34** (100%) and **TR35-C383** (85%), but interestingly in this region **CTA3** is not associated with the **C173-BL34** pairing. The first half of the dataset includes 21 of the 28 PI sites. In the second half of the dataset there are only 7 PI sites, which means that the trees are being made from very little information. However, in the tree for the second half of the core region (CI=0.983), the expected pairings are still present. **C173-BL34** is well supported (91%) and **BL23-ULK3** is visible again with 77% support, although with long individual branches to each of the manuscripts. In the absence of **C383,** the **TR35** does not form a close pairing. **CTA3** is again associated with the **C173-BL34** group (with 72% support).

By looking at sections of a tradition it is often possible to get an indication of manuscripts that may change their affiliation throughout the length of the text, which may reflect, for example, change of exemplar at some point in the copying process. There is little evidence of any shifts of affiliation in this tradition, although there is a slight

movement of **CTA3** to become more closely associated with the **C173-BL34** pairing in the latter part of the text. For this reason we decided to run Maximum Chi-squared and Percentage of Differences analyses on **CTA3** in a comparison with **C173** – the exemplar for **BL34** (see Fig. 5). The threshold P value for a full pairwise comparison of a seven-manuscript tradition = 2.4×10^{-3}.

<Fig. 5. Results of Maximum chi-squared and Percentage of Differences analyses for manuscripts CTA3 and C173.>

The 'maximum chi-squared' peak has a chi-squared value of 24.78 and occurs at column 5, triggered by a number of differences in the first few words of the text. The associated P value of 4.7×10^{-3} is not statistically significant. However, it is still possible to gain some qualitative information. The 'percentage of differences' chart shows that the two texts definitely become more similar in the latter part of the text – the peak before column 100 reflects a number of unique **CTA3** readings in the early part of the text. The 'maximum chi-squared' and 'percentage of differences' analyses have given some qualitative information about the increasing similarity of **CTA3** to **C173** in the latter part of the core text, which may reflect some alteration in the copying history, but they have not given clear statistical support to the identification of a breakpoint or change of exemplar in the texts.

CONCLUSION

The analyses of the WSRG data gave some objective and statistical support to certain manuscript groupings. This is potentially important for what it shows about the relationships of the extant sources, which are largely consistent with those arrived at previously by traditional methods of textual criticism. This serves to validate the use of such computer-based methods with Old English textual material. For example, the pairing of **C173** and **BL34** has particularly strong statistical support, confirming what

we know about these texts based on other historical grounds. Further, there is some evidence that **CTA3** is linked with the **C173-BL34** pair, a grouping otherwise already recognised by virtue of an association with copies of the Anglo-Saxon Chronicle. This similarity of context, and of text, which can be seen increasingly in the latter part of the core region, may be enough to suppose they shared a common ninth-century ancestor. The separate pairing of **TR35-C383** is a novel grouping of high interest. The grouping is statistically supported (70% support), but the textual relationship did not seem to be apparent in the literature before. It has not been mentioned by writers except to dismiss it, unfairly, in our opinion, and on insufficient grounds.[38] The phylogenetic analysis supports a textual link between these witnesses, and though it is uncertain how far **C383** originally extended, when compared with **TR35**, our analysis of several shared readings peculiar to **C383-TR35** (see note 37) provides support for a view that these witnesses may be related and derived from the same lost exemplar. Such a conclusion, which can be strengthened on other historical and palaeographical grounds, is sufficient to argue that the lost exemplar reached Rochester for **TR35** via the same eleventh-century manuscript which was the source of **C383**. While a more secure identification is not possible on the textual evidence alone, taking the evidence of text, script, and context together, it is reasonable to conjecture that the lost exemplar was a Canterbury book, dated c. 1100. Thus, our study has proved to be useful by validating the use of phylogenetic and other computer-based analyses to provide new insight into the reception of an important Alfredian text, and thus to indicate new avenues for research into the written history of Old English texts.

APPENDIX: TABLE OF CONCORDANCES

Table of concordance between the sigla used by Napier (1897) and Hackenberg (1918); and by Dumville's variorum edition (1986) and those used by this study:

Manuscript details	Napier/Hackenberg	Dumville	Our study
London, British Library, Add. 23211 (c. 871×899, Wessex), fol. 1v (Gn-L *ASMss* 282).	S	N	BL23
Cambridge, Corpus Christi College, 173 (s. ix/x, Wessex, perh. Winchester), fol. 1r (Gn-L *ASMss* 52).	P	P	C173
London, British Library, Add. 34652 (s. x med. and xi[1]; all parts Winchester), fol. 2 (Gn-L *ASMss* 357).	A	Q	BL34
London, British Library, Cotton Tiberius A. iii (s. x[3/4] prob. 977×979), fol. 178 (Gn-L *ASMss* 364).	T	T	CTA3
Cambridge, University Library, Kk. 3. 18 (s. xi[2], Worcester), fols. 3v-4r (Gn-L *ASMss* 22).	Ca	V	ULK3
Cambridge, Corpus Christi College, 383 (s. xi/xii, prob. London, St Paul's), fol. 69v (Gn-L *ASMss* 102).	J	W	C383
Rochester, Cathedral Library, A.3.5 (c. 1123×25 and additions, Rochester), fols. 7v-8v.	T	T	TR35

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NOTES

[1] *Editio princeps* is Wheloc (1643), pp. 5-7. Textual evidence from the seven direct sources of transmission has been most recently presented in companion pieces, Dumville (1985) and Dumville (1986).

[2] Dumville (1986) p. 1.

[3] Referred to by Kenneth Sisam as R^A and R^B, who identifies its exemplar as the lost ancestor of Cambridge, Corpus Christi College 183, fol. 67r, which was written in Alfred's lifetime. See Sisam (1953), pp. 294-97. For reference to Corpus 183 see Gneuss and Lapidge (2014), cit. no. 56 (hereafter abbreviated as Gn-L *ASMss,* with number of entry).

[4] Resembling the lost exemplar of British Library, Stowe 944 (A.D. 1031 and additions, Winchester NM), fol. 39 (Gn-L *ASMss* 500). The text appears in Stowe 944 under the heading 'Nomina Regum', being a list of Kings of Wessex, showing the duration of their reigns from Ine to Cnut.

[5] The West Saxon royal genealogy is not recognized among the group of prefaces and epilogues that Professor Irvine identifies as 'Alfredian.' But since four of the seven direct sources for the text (plus one other lost exemplar that formerly belonged to BL, Cotton Otho B. xi, part 1) framed manuscripts of the OE Bede or the Anglo-Saxon Chronicle, we suggest that the WSRG might be considered for inclusion among the corpus of Alfredian prefaces and epilogues. See Irvine (2014).

[6] A note in pen on the front flyleaf states 'Received from the Dept. of Printed Books, 31 March 1859'. It is not known from which early modern book these fragments came.

[7] Sisam (1953), p. 333.

[8] For this fragment's archaic, possible Kentish, dialect features see Sweet (1885), p. 179.

[9] For orthographical changes giving way by Alfred's time, as observed by Sisam in **C173,** see Sisam (1953), p. 333.

[10] Ælfric, the homilist, attributes the translation to Alfred himself, in his discussion of Gregory the Great in the Second Series of his *Catholic Homilies*. This shows that the attribution was current from at least the 990s. See Godden (1979), p. 72.

[11] The contents note in Gneuss and Lapidge makes no mention of this witness.

[12] For identification of Hemming see Ker (1948).

[13] This was the opinion of Whitelock (1962).

[14] John Smith, between the years 1709 and 1714/15, collated at London the now lost copy of the WSRG, which originally prefaced a copy of the OE Bede. For discussion of this lost exemplar see Waite (2015) pp. 48-54; and Waite (2021).

[15] Before the fire, this text originally belonged to BL, Cotton Otho B. xi, part 1, written at Winchester in the mid-tenth century (Gn-L *ASMss* 357).

[16] Miller (1890 vol. 95) grouped the five principal manuscripts of the OE Bede, xxii–xxvi. Whitelock, basing herself on Miller's hypothesis, postulated the archetype, X, and Y and Z as exemplars of the two branches, see Whitelock (1962) pp. 60-61 and 81. Waite has lately reaffirmed the received view of the manuscript relationships, and clarified the identity of the textual group descending from the hyparchetype which he calls Y, see Waite (2015) p. 40.

[17] For discussion of the relationship between English legislative and regnal records, with reference to the West Saxon royal genealogy see Wormald (1999a) pp. 36-37; but cf. Dumville (1990) pp. 75-6.

[18] For this appellation see Wormald (1999b) pp. 224-53; and Wormald (2011) p. 526.

[19] Professor Wormald noted that this whole manuscript contains an error-infested text that shows signs of having multiple layers of corrections, from different sources, by different hands, of which one may be identifiable with the scribe who added the WSRG. For discussion see Wormald (1999b) p. 234, n. 285.

[20] Discussed in the introduction to Sawyer (1957-62).

[21] For discussion of the Rochester codex corrections see Sawyer (1957-1962) pp. 13-14; and further, on the postulated Canterbury exemplar, see Wormald (1999b) pp. 249-52.

[22] Stemmata are found in Napier (1897) p. 55, whose view is adopted substantially by Hackenberg (1918) p. 8. A new stemma, based on an altogether different orientation and grouping of the witnesses, is presented by Dumville (1985) and Dumville (1986), where the WSRG is edited.

[23] For further key variants in each analysis and related text-historical discussion see Napier (1897) pp. 54-55; Hackenberg (1918) pp. 7-8; Sisam (1953) pp. 295-97, 333-34; but cf. Dumville (1986) pp. 12-17.

[24] Edwards (2009) gives an overview of the development of phylogenetic methods for use with biological data.

[25] Karl Lachmann in the first half of the 19th century and, later, Paul Maas in the early 20th century, are widely credited with formalising the principles used for generating stemmata. This approach has been widely applied in textual criticism - see Maas (1927).

[26] Page and Holmes (1998) provide an overview of many commonly used phylogenetic methods.

[27] Institut für Neutestamentliche Textforschung, Münster at: https://ntvmr.uni-muenster.de/collation, accessed 18 Jan 2022.

[28] The core-region encompasses the region of text beginning with the arrival of Cerdic and his son Cynric, the initial words being 'Þy geare þe wæs agan…', and ends with the accession of Alfred, the final words being '…on wealum geeodon'. The core-region of text corresponds to sections keyed as §§ 1–27 in Hackenberg's edition (Hackenberg, 1918) pp. 8–10. Dumville's edition, as it is printed, is not keyed to line numbers in the text, but is sub-divided into sections or content units indicated by paragraphing: no explanation is given for this editorial decision (see Dumville, 1986, pp. 21–25).

[29] See Guillaumin (2020) p. 353.

[30] Performed solely in case of **BL23** where, because of accidental loss due to trimming, some letters or parts of words are missing. Where it seemed likely that a reading could be restored, without taking undue liberty with the text, such 'missing data' was restored on the evidence of spellings found at a different site in the same manuscript (e.g. *co[. . . .]ing coenred > coenreding coenred;* and *cuðuulfing cuð[. . . .] > cuðuulfing cuðuulf*), corresponding in number to the apparent number of letters missing or required in the context.

[31] Old English had no settled system of orthography and spelling was subject to much variation in the manuscript traditions. Phylogenetic methods of textual analysis typically ignore spelling differences, in order to minimise the impact of trivial variation. For a review of phylogenetic methods and a response to criticisms, particularly of regularisation procedures, see Howe *et al.* (2012) pp. 60-61.

[32] Regularisation was made according to the intended lexical meaning of the word, not an individual scribe's expression of local sound-changes. We regularised the majority of spellings, as such differences are not informative for ascertaining the transmission of the text. No assumption was made about the language and orthography of the presumed

original text, nor did we attempt to reconstruct or regularise forms of spelling towards early West Saxon dialect (or Anglian forms of the genealogical matter).

[33] In selecting points of phonology there is a high degree of subjectivity involved in determining what is (or may be) of phonemic/phonetic significance for the investigation of a text's transmission. Depending upon the historical conditions of copying, a later scribe can easily change or 'translate' spellings, the script, and the language of his exemplar. Anecdotally, a West Saxon scribe, in his exemplar, could change *on* > *an* (as in *brond* > *brand*), just as a Kentish scribe could change *æ* > *e* (as in *bældæg* > *beldæg*): these are alternative forms of spelling the same word with different symbols. For textual and phylogenetic analysis such spellings are not informative, so have been regularised.

[34] The spelling *friþugaring friþugar* is found in two witnesses (**C173, BL34**), as against all other witnesses. We scored *friþugaring friþugar* as variants because *friþu-* seemed to contrast with the other readings to such a degree we judged it to be more likely that a common ancestor had that reading. This does not assume that the reading *friþu-* is necessarily 'original' or 'better' or that either *friþu-* or the alternative reading *freoðo-* must be closer to the assumed original spelling of the text.

[35] See Sokal and Rohlf (1995) p. 239.

[36] The Consistency Index was introduced by Kluge and Farris (1969). It has been criticised as being dependent on the number of taxa and columns in the datatset, however, the high values in our analyses are well above the CIs for random datasets of this size (Klassen *et al.*, 1991).

[37] (a) Omissions: of the conjunction 'ond' or '7', as against other witnesses, except **UKL3** at col. 49, and except **CTA3** at col. 82; (b) additions: at col. 59, of the pronoun 'hie', as against all other witnesses, except **CTA3**; at col. 224, of the pronoun 'he', as against all

other witnesses, except **ULK3**; (c) differences of reading: at cols. 91-93, inversion of word order, 'cynric his sunu', as against all other witnesses (the rearrangement being indicated by the inserted col. 90); at col. 115, shared reading 'gear', as against other witnesses, except **CTA3**; at col. 173, shared reading 'heold', as against all other witnesses.

[38] The possibility of this textual relationship has been raised but was dismissed by Dumville, who notes that the collection of legal texts with which this version of the WSRG is associated here is 'closely related to that in *Textus Roffensis*, Part 1; but the copy of the Genealogical Regnal List seems to be an early addition to [**C383**] and it shows no especial closeness to the copy in [**TR35**].' See Dumville (1986) p.12.

Figure 1

	40	41	42	43	44	45	46	47	48	49	50
BL23	~	~	~	~	~	~	~	~	~	~	~
BL34	freawining	freawine	friþugaring	friþugar	bronding	brond	bældæging	bældæg	wodening	ond	þæs
C173	freawining	freawine	friþugaring	friþugar	bronding	brond	bældæging	bældæg	wodening	ond	þæs
C383	freawining	freawine	freoðogaring	freoðogar	bronding	brond	bældæging	bældæg	wodening	~	þæs
CTA3	freawining	freawine	freoðogaring	freoðogar	bronding	brond	bældæging	bældæg	wodening	ond	þæs
TR35	freawining	freawine	freoðogaring	freoðogar	bronding	brond	bældæging	bældæg	wodening	~	þæs
ULK3	freawining	freawine	freoðogaring	freoðogar	bronding	brond	bældæging	bældæg	wodening	~	þæs

Figure 2

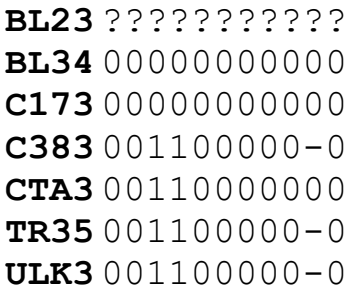
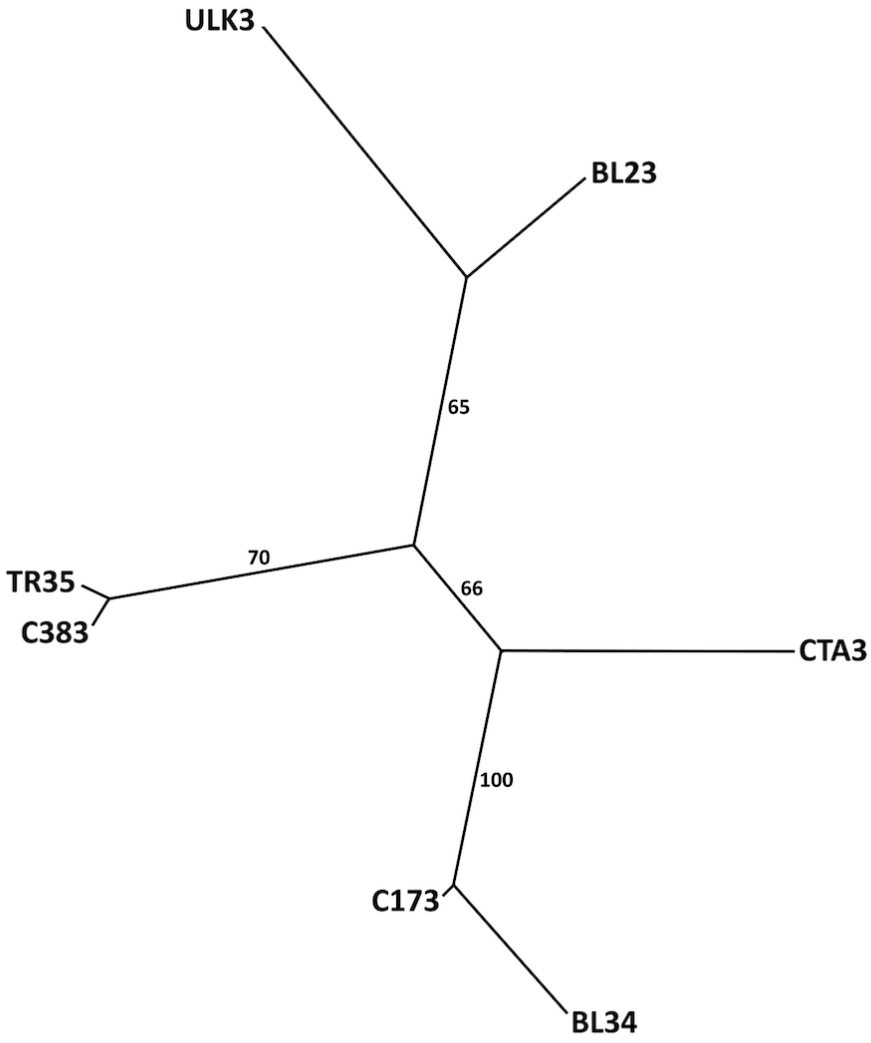
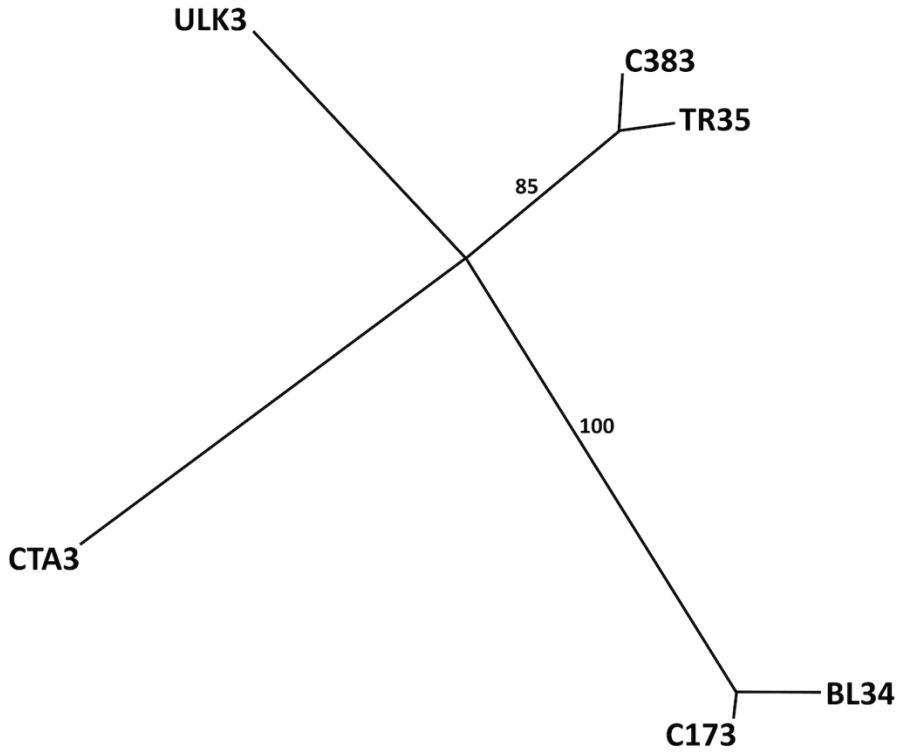

BL23 ??????????
BL34 00000000000
C173 00000000000
C383 001100000-0
CTA3 00110000000
TR35 001100000-0
ULK3 001100000-0

Figure 3



1

Figure 4a



1

Figure 4b

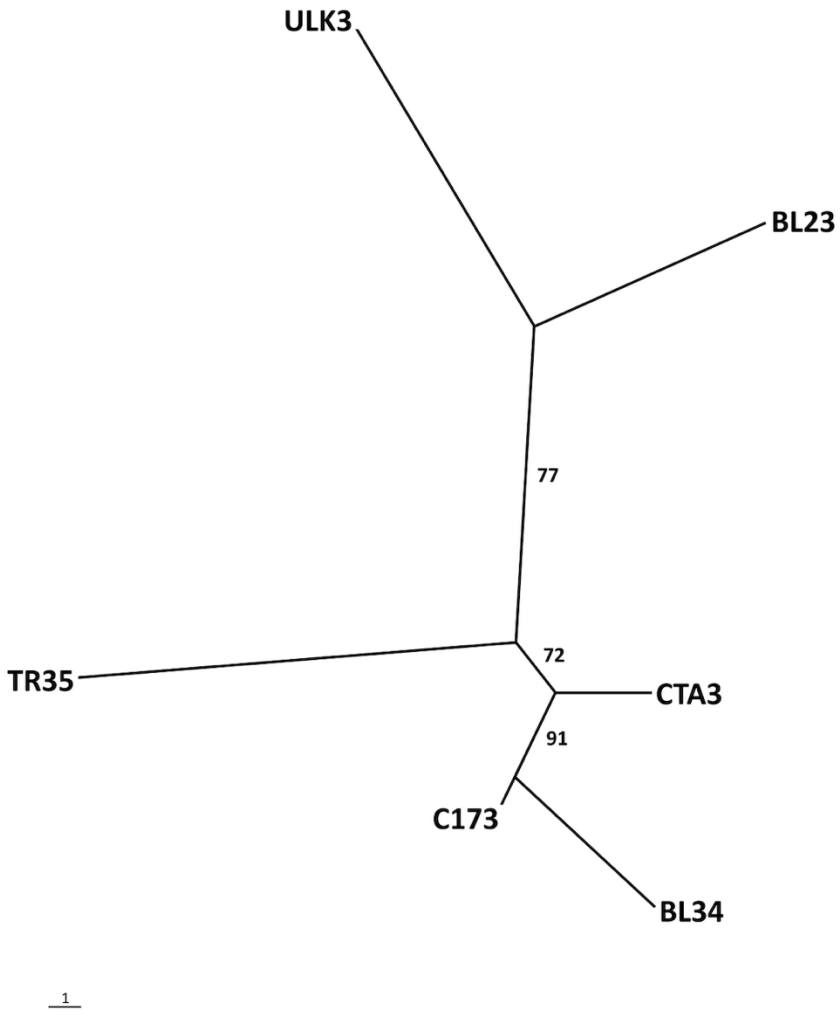
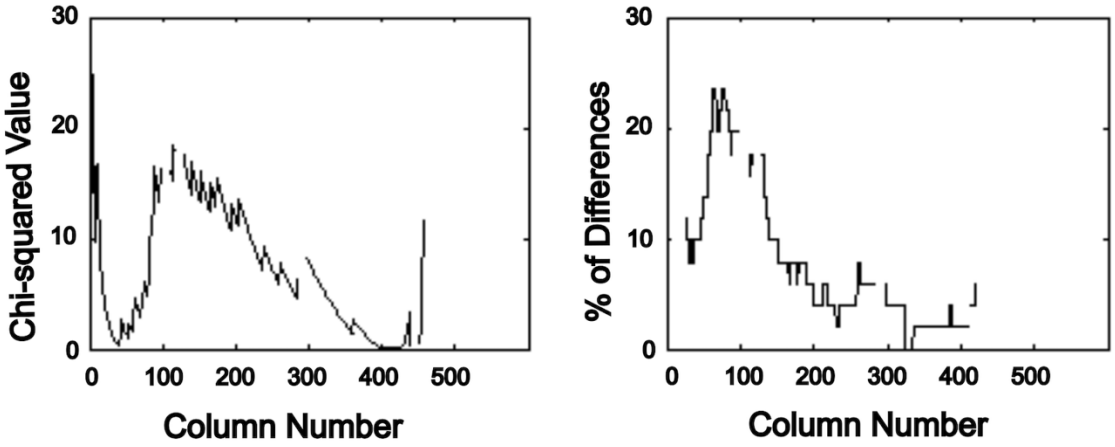


Figure 5


Chi-squared Value
30
20
10
0
0
100
200
300
400
500
Column Number
% of Differences
30
20
10
0
0
100
200
300
400
500
Column Number

The Transmission of "The West Saxon Royal Genealogy": a Phylogenetic Approach.

SUPPLEMENTARY MATERIAL

An inventory of manuscripts containing the genealogy is provided in **File S1**.

Full diplomatic transcriptions of the texts are provided in **File S2**.

File S3. The full aligned and regularised collation of WSRG.

In the figure, the manuscripts are indicated by their sigla as described in the Appendix to the main paper. <L 1> <L 2> etc. indicate the functional regularisation blocks into which the text was divided. The ~ symbol indicates that a word is missing in one or more witnesses. Most columns represent a single word in the text. Numerical columns indicate locations where one or more texts have altered word ordering (as described in the main text). In these columns, witnesses that carry the same word order are given the same numerical code. The text is then re-ordered into a uniform order, so the rearrangement scores as a single difference. Columns 481-927 represent the two unique tails, which are not included in the regularisation process or the analysis.

File S4. The Nexus file prepared from the full aligned and regularised collation of WSRG (this file is best viewed in Wordpad on a PC or as a textfile on a Mac computer).

The Nexus file is a direct conversion from the aligned regularised text. With the exception of the first column, the reading in the first text is scored as '0' and the first variant encountered is scored as '1', the second as '2' etc. The first word in a gap region is scored as '-', which is a scoring character, included in the analyses. Subsequent missing words in the same gap are scored as '?', which is ignored by the phylogenetic algorithm, such that a gap counts as a single difference regardless of length. The scoring for the first column in this alignment proved to be an exception. Columns 1-352 were missing in witness **BL23** and columns 231 onwards were missing in **C383**. This means

that these two texts were in the most unusual situation of having no material in common at all, with an overlapping central section (columns 231-352) not found in either witness. However, as **C383** (along with several other witnesses) was also missing the first two columns of text, it shared a '-' reading with **BL23** in col.1. This meant that in the only column in which both texts had a reading, they both had the scoring character '-', resulting in the two witnesses being completely identical with regards to scoring characters, whereas in reality they had no material in common, and **BL23** could not reasonably be considered to be sharing the small omission found in some of the other texts. As the '-' characters were not comparable, that in **C383** representing a small textual omission, while that in **BL23** represented the absence of the first half of the text, the scoring character for the first character of **BL23** was manually changed to an alternative scoring character, '1'. The two texts were now considered to be completely different from each other with regards to scoring characters, which seemed a better representation of the actual situation.

The table in **File S5** lists the columns that are considered to be 'parsimony informative' for this collation. For a column to be considered 'parsimony informative' (PI) there should be at least two different scorings readings (i.e. not '?'), both of which are present in at least two of the manuscripts.

The analysis was run in PAUP* 4.0b10 using 1,000 bootstrap replicates. Note that, as the analysis starts from a random seed tree there may be very slight differences in the support percentages (approximately 1-2 %) on repeated analyses. As the analyses were run with a cut-off of 50% (i.e. only those groupings that appear in at least 50% of the individual trees are shown) there may be occasions where groupings that are very close to this threshold (maybe 49-51% support) appear and disappear with repeated runs.

S1: SUMMARY INVENTORY OF MANUSCRIPTS CONTAINING THE WEST SAXON ROYAL GENEALOGY.

KEY:

Bold: surviving texts

[]: extraneous matter

- : linked texts in manuscript

(f): fragmentary

1. BL23: origin, Wessex, c. 871×899
   Contents: Computistical verses and note, **WSRG** (f), East-Saxon genealogy, OE Martyrology
2. C173: origin, Wessex ?Winchester, s. ix/x; provenance, Winchester by s. x. med.; Christ Church, Canterbury, s. xi ex or xii in.
   Contents: **WSRG**-Anglo-Saxon Chronicle A, Acta Lanfranci, Laws *Alfred* and *Ine*, papal and episcopal lists [Sedulius, *Carmen Paschale* etc]
3. BL34: origin, Winchester, s. x med. and xi^{1}
   Contents: OE Bede, **WSRG**-Anglo-Saxon Chronicle G, papal and episcopal lists, Laws *Æthelstan II*, *Alfred* and *Ine*, Burghal Hidage, 'Seasons of Fasting', medical recipes
4. CTA3: origin, ?Abingdon, s. $x^{3/4}$ probably 977×979; provenance, probably Christ Church, Canterbury, s. xi^{2}
   Contents: Anglo-Saxon Chronicle B-**WSRG,** note, papal and episcopal lists [*Inquisitio Eliensis* etc]
5. ULK3: origin and provenance, Worcester, s. xi^{2}
   Contents: Preface-**WSRG**-OE Bede
6. C383: origin, probably London, St. Paul's, s. xi/xii
   Contents: A collection of Anglo-Saxon Laws, charm, record, shipmen, **WSRG** (f)
7. TR35: origin and provenance, Rochester (1123×25)
   Contents: A collection of Anglo-Saxon Laws, **WSRG**, Laws, ordeal rituals, Laws, papal decretals, Laws, charm, Laws, patriarchal, papal and episcopal lists, royal genealogies [Rochester Cartulary]

S2 : DIPLOMATIC TRANSCRIPTIONS OF WEST SAXON ROYAL GENEALOGY TEXTS

Textual data for this study was supplied as a set of full diplomatic transcriptions, that is, texts which follow the manuscripts as closely as is practicable and attempt to represent by means of a system of editorial signs the physical state of the different witnesses. The transcripts adhere faithfully to the originals in respect of spelling, punctuation, accentuation, capitalisation, and layout, except that words have been separated and line-breaks are not indicated; additions, deletions, and substitutions made to the text at the time of and subsequent to its creation have been recorded.

The only stop which occurs is, as a rule, the point either on or above the line which are marked in both cases by a full stop (.). Letters, words, or sentences, inserted by the scribe are marked by convergent diacritics; apex signs (referred to as 'accents') have been recorded; proper names and place names are capitalised only when they are so in the manuscripts; and the expansion of abbreviations is indicated by italics. The abbreviation '7' has been retained, however, so that a choice of spelling (between 'and', 'ond') might be avoided. The Old English runes 'yogh' and 'wynn' have been printed as 'g' and 'w' as is modern and conventional. In other cases, the editorial conventions are those of the series Dumville and Keynes (1983-2008).

In the transcriptions which follow, the texts are headed by the sigla and shelf-mark of the manuscript. The sigla are described in the Appendix to the main paper, and the shelf-mark of each item is given following the conventions of Gneuss and Lapidge (2014).

BL23 — London, British Library, Additional 23211, fol. 1v

rice 7 heold . xxxvii . wint*ra* 7 . vii . monað . ond ða feng æ[. . . . .] his sunu to 7 heold . xviiii . healf gear . ond se æðe[. . . . .] wæs . ecgberhting ecgberht ealhcmunding ealh[. . . . .] eabing eaba eopping eoppa ingilding ingild co[. . . . .]ing coenred ceolwalding ceolwald cuðuulfing cuð[. . . . .] cuðwining cuðwine ceaulniing ceaul`i´n cynnr[. . . . .] cynnric crioding criodo ceardicing ond ða feng æðelbald . his sunu to 7 heold . v . gear . ða feng æðelbe[. . . . .] broðor to rice 7 heold . v . gear . ða feng æðered his [. . . . .] to rice . 7 heold . v . gear ða feng ælfred hira broðar [. . . . .] ond ða wæs . agan . his . eldo . xxiii . wintra . ond . ccc . [. . . . .] wintra ðæs ðe his cynn ærest west seaxna . lond o[. . . . .] walum ge eodon : ·

C173 — Cambridge, Corpus Christi College, 173, fol. 1r

ÞY GEARE ÞE WÆS AGAN FRA*M* CRISTES ACENnesse . cccc . wintra . 7 . xciiii . uuintra . þa cerdic 7 cynric his sunu cuom up `æt´ cerdices oran . mid . v . scipum 7 se cerdic wæs . elesing . elesa esling . esla . gewising . giwis . wiging . wig . freawining . freawine . friþugaring . friþugar . bronding . brond bęldæging . bęldæg . wodening . Ond þæs ymb . vi . gear þæs þe hie up cuomon ge eodon west seaxna rice 7 þæt uuærun þa ærestan cyningas þe west seaxna lond on wealum ge eodon 7 he hæfde þæt rice . xvi . gear 7 þa he gefór þa feng his sunu cynric to þam rice 7 heold . xvii . winter . Þa he gefor þa feng ceol to þam rice 7 heold . vi . gear . Þa he gefór þa feng ceolwulf to his broþur 7 he ricsode . xvii . gear 7 hiera cyn gęþ to cerdice . Þa feng cynegils ceolwulfes broþur sunu to rice 7 ricsode . xxxi . wintra 7 he onfeng ærest fulwihte wesseaxna cyninga 7 þa feng cenwalh to 7 heold . xxxi . wintra 7 se cenwalh wæs cynegilses sunu 7 þa heold seaxburg his cuen án gear þæt rice æfter him . Þa feng æscwine to rice þæs cyn gęþ to cerdice 7 heold . ii . gear . Þa feng centwine to wesseaxna rice cynegilsing 7 ricsode . vii . gear þa feng ceadwalla to þa*m* rice þæs cyn gęþ to cerdice 7 heold . iii . gear. Ða feng Ine to seaxna rice þęs cyn gęþ to ceardice 7 heold . xxxvii . wintra . Þa feng . ęþelheard to þæs cyn gęþ to ceardice 7 heold . xiiii. winter . Þa feng cuþred to þæs cyn gęþ to cerdice 7 heold . xvii . gear . Þa feng sigebryht to þæs cyn gęþ to cerdice 7 heold an gear . Þa feng cynewulf to rice þæs cyn gęþ to ceardice 7 heold . xxxi . wintra . Þa feng beorhtric to rice þæs cyn gęþ to cerdice 7 heold . xvi . gear . Þa feng ecgbryht to þam rice 7 heold . xxxvii . wintra 7 . vii . monaþ 7 þa feng ęþelwulf his sunu to 7 heold nigon teoðe healf gear . Se ęþelwulf wæs ecgbryhting ecgbryht . ealhmunding . ealhmund . eafing . eafa . eopping . eoppa Ingilding . Ingild . cenreding . 7 Ine . cenreding . 7 cuþburg . cenreding . 7 cuenburg . cenreding . cenred . ceolwalding . ceolwald . cuþwulfing . cuþwulf . cuþwining . cuþwine . celming . celm . cynricing . cynric . cerdicing . Ond þa feng ęþelbald his sunu to rice 7 heold . v . gear . Þa feng ęþelbryht his broþur to 7 heold . v . gear . Þa feng ęþered hiera broþur to rice . 7 heold . v . gear . Þa feng ęlfred hiera broþur to rice 7 þa was ágán his ielde . xxiii . wintra . 7 . ccc . 7 xcvi . wintra þæs þe his cyn ærest wes`t´seaxna lond on wealum geodon : ·

BL34 — London, British Library, Additional 34652, fol. 2

Þy geare þe wæs agan fram cristes acennednesse feower hund wintra . 7 feower 7 hundnygenti . wintra . þa cerdic 7 cinric his sunu cuomon up æt cerdices oran mid fif scypum . 7 se cerdic wæs elesing . elesa . esling . esla . gewising . gewis . wiging . wig . freawining . freawine . friþugaring . friþugar . bronding . brond . bældæging . bældæg . wodening. Ond þæs ymb syx gear þæs þe hy up cuomon geeodon westseaxna rice 7 þ*æt* wærun þa ærestan cyningas þ`e´ wesseaxna lond on wealum geeodon 7 he hæfde *þæt* rice syx gear . 7 þa he gefor . þa feng his sunu cynric to þam rice 7 heold seofan wint*ra* . þa he gefor þa feng ceol to þam rice . 7 heol seofan gear . þa he gefor þa feng ceol to þam rice . 7 heold syx gear . þa he gefor þa feng ceolwulf to his broþor 7 he ricsode seofæntyne gear 7 hiora cyn gæð to cerdice . þa feng cynegils ceolwulfes broþor sunu to rice 7 ricsode an 7 ðritti win`t´ra . 7 he onfeng ærest fulwihte wesseaxna cyninga . 7 þa feng cenwalh to 7 heold án 7 ðritti wintra . 7 se cenwald wæs cynegilses sunu 7 þa heold seaxburh his cwen an gear þ*æt* rice æfter him . þa feng æscwine to rice þæs cynn gæð to cerdice 7 heol`d´ twa gear . þa feng centwine to wesseaxna rice cynegilsing 7 ricsode seofan gear . þa feng ceadwalla to þam rice þæs cyn gæð to cerdice 7 heold twa gear. þa feng Ine to wesseaxna rice þæs cyn gæð to cerdice 7 heold syx 7 ðritti wintra . þa feng [fol. 2v] æðelheard to þæs cyn gæð to cerdice 7 heold . feowertyne wint*ra* . þa feng cuþred to þæs cyn gæð to cerdice 7 heold seofantyne gear . þa feng sigebyrht to þæs cyn gæð to cerdice 7 heold an gear . þa feng cynewulf to rice þæs cyn gæð to cerdice 7 heold 7 an 7 ðrytti wintra . þa feng beorhtric to rice þæs cyn gæð to cerdice 7 heold syxtyne gear . þa feng ecbyrht to þam rice 7 heold seofen 7 ðrytti wintra 7 . seofen monað . 7 þa feng æþelwulf to his sunu 7 heold nigenteoðe healf gear. Se æþelwulf wæs ecbyrhting . ecbyrht . ealhlmunding . ealhmund . eafing . eafa eopping . eoppa ingylding . ingyld cenreding . 7 ine cenreding . 7 cuþburhg cenreding . 7 cwenburhg cenreding . cenred . ceolwalding . ceolwald . cuþwulfing . cuðwulf . cuþwining . cuþwine . celming . celm . cynricing . cynric . cerdiccing . Ond þa feng æðelbald his sunu to rice 7 heold fif ger . þa feng æþelbyrht his broður to 7 heold . fif ger . þa feng æþered to heora broþor to rice . 7 heold . fif ger . þa feng ælfred hiora broþor to rice . 7 þa wæs agan his ylde twa 7 twenti wintra . 7 ðreo hund 7 syx 7 hundnigentig wintra þæs te his cyn ærest westseaxna lond . on wealum geeodon.

CTA3 — London, British Library, Cotton Tiberius A. iii, fol. 178

Ða wæs agangen fram cristes acennednesse . cccc . 7 . xc`iiii´ . wintra ða cerdic 7 cynric his sunu coman upp æt cerdices oran mid . v . scipum . 7 se cerdic wæs elesing . elesa esling . esla giwising giwis wiging . wig freawining . freawine freoþogaring . freoþogar branding . brand bældæging . bældæg wodening . 7 þæs embe . vi gear þe hie upp coman . hie geeodan westsexna land 7 þ*æt* wæron þa ærestan cingas . þe westsexna land æt wealu*m* genaman . 7 he hæfde þ*æt* rice . xvi . winter þa gefor he 7 feng his sunu cýnric to ðam ríce . 7 heold . xxvi . wintra . þa he forð ferde þa feng ceawlin tó . his sunu 7 heold . xvii . gear . þa he gefór þa feng ceol to ðam ríce 7 heold . v . gear þa he gefor ða feng ceolfwulf to his broðor . 7 rixode . xvii . gear . 7 heora cýnn gæð to cerdice . þa feng cýnegils to ceolwulfes broðor sunu to ríce . 7 rixode . xx . wintra 7 he onfeng ærest fulwihte westsexna cinga . 7 þa feng cenwalh to 7 heold . xxxi . wintra . se cenwealh wæs cýnegilses sunu . 7 þa heold sexburh cwén an gear þ*æt* ríce æfter him . ða feng æscwine to rice . þæs cýnn gæð to cerdice . 7 heold . ii . gear . þa feng centwine to westsexna rice cinegilsing . 7 rixode . viii`i´. gear . ða feng ceadwalla to þam ríce . þæs cýnn gæð to cerdice . 7 heold . iii . gear . ða feng ine to westsexna ríce þæs cýnn gæþ to cerdice 7 heold xxxvii . wintra . þa feng æþelheard to þæs cýnn gæþ to cerdice . 7 heold . xvi gear . þa feng sigebriht to þæs cýnn gæð to cerdice [fol. 178v] 7 heold . i . gear . þa feng cýnewulf to . þæs cýnn gæþ to cerdice . 7 heold . xxxi . wintra . þa feng birhtric to rice . þæs cýn gæþ to cerdice . 7 heold . xvi . gear . þa feng ecgbriht to þam ríce . 7 heold . xxxvii . wintra . 7 vii . monað . þa feng aþelwulf his sunu to . 7 heold ix . teoðe healf gear . se aþelwulf wæs ecgbrihting . ecgbriht ealhmunding . ealhmund eafing . eafa eopping . eoppa ingilding ingild cenreding . 7 ine cenreding 7 cuðburh cenreding . 7 cwenburh cenreding . cenred ceolwalding . ceolwald cuþwulfing . cuðwulf cuðwining . cuðwine celming . celm cýnricing . cinric creoding . creoda cerdicing . And þa feng æþelbald his sunu tó . 7 heold . v . gear . þa feng æþelbriht his broðor to . 7 heold . v . gear . ða feng ælfred heora broðor to . 7 heold oþran healfan geare læs þe . xxx . wintra . þa feng eadweard to . ælfreding . 7 heold . xxiiii . wint*ra* . ða he forðferde . þa feng æþelstan to his sunu . 7 heold . xiiii . gear . 7 vii . wucan . 7 iii . dagas. Þa feng eadmund to his broþor 7 heol seofoðe healf gear butan . ii . nihtum . ða feng eadred his broþor to 7 heold . ix . gear . 7 vi . wucan . Þa feng eadwig to . eadmundes sunu cinges . 7 heold . iii . gear . 7 xxxvi . wucena . buton . ii . dagum . þa he forðferde . þa feng eadgar to his broðor 7 heold . xvi . gear 7 viii . wucan . 7 ii . niht . ða he forðferde þa feng eadweard to eadgares sunu 7 heold

ULK3 — Cambridge, University Library, Kk.3.18, fols. 3v–4r

Ða wæs agangen fra*m* cristes acennednỳsse . cccc . 7 xciiii . wintra þa cerdic 7 cỳneric his sunu coman upp æt cerdices oran mid fif scipum . 7 se cerdic wæs elesing . elesa gewising . gewis wiging . wiging freawining . freawine freoðogaring . freoðogar bronding . brond bældæging . bældæg wodening . þæs ỳmbe sỳx gear ðæs þe hi upp coman ge eodan west seaxna rice . þ*æt* wæron ða ærestan cỳningas þe west seaxena land onwealum ge eodan . 7 he hæfde þ*æt* rice sixtỳne gear . 7 ða gefor he . 7 þa feng his sunu cỳneric to þam rice . 7 hit heold . xxvii . wintra . þa he forð ferde . þa feng ceaulin his sunu to . 7 heold seofon winter . þa he gefór . ða feng ceol to þa*m* rice . 7 heold sỳx gear . þa he gefor . ða feng [fol. 4r] ceolwulf to his broðor 7 he rixade seofontỳne gear . heora cỳnn gæð to cerdice . þa feng cỳnegỳls ceolwulfes broðer suna . to rice . 7 hæfde an 7 þrittig wintra . 7 he onfeng ærest fulluhte west seaxna cỳninga . Ða feng kenwalh to rice 7 heold hit þrittig winter . se cenwalh wæs cỳnegelses sunu . 7 þa heold seaxburh his cwǽn an gear þ*æt* rice æft*er* hi*m* . Ða feng æscwine to rice þæs cỳn gæð to ceardice . 7 he heold twa gear . þa feng centwine to west seaxna rice . cỳnegelsing . 7 ricsade nigon gear . þa feng ceadwala to þa*m* rice . ðæs cỳnn gæð to cerdice . 7 he heold . iii . gear . Ða feng ine to þa*m* rice þæs cỳn gæð to cerdice . 7 he heold twa 7 þrittig winter . þa feng æþelheard to rice . 7 heold feowertỳne winter . Ða feng cuðred to þæs cỳn gæð to cerdice . 7 he heold sỳxtỳne winter . þa feng sigebỳrht to þæs cỳn gæð to cerdice . 7 he heold an gear . Ða feng cỳnewulf to rice . þæs cỳn gæð to cerdice . 7 he heold an 7 þrittig geara . þa feng beorhtric to rice . 7 he heold . sixtene gear . Ða feng ecbỳrht to þa*m* rice 7 heold seofon 7 þrittig geara 7 s`e´ofen monað 7 þa feng æðelwulf his sunu to 7 heold nigontoðe healf gear . 7 se æðelwulf wæs ecgbỳrhting ecbỳrht ealhmunding eal<u>mun</u>d eabing . eaba iopping . ioppa ingilding . ingild cenreding . 7 ine cenreding . 7 cuðburh cenreding . 7 cwenburh cenreding . cenred ceolwalding . ceolwald cuðwulfing . cuðwulf wining cuðwine celming . celm . cỳnricing . cỳneric creoding creodda cerdicing . þa feng æþelbald his sunu to rice 7 heold fif gear . þa feng æðelbỳrht to his broðor 7 heold . v . gear . þa feng æðered his broðor to rice 7 heold . v . gear þa feng ælfred hỳra broðer to rice . 7 þa wæs agangen his ỳlde þreo 7 twentig wintra . 7 þreo hund 7 six 7 hund nỳgantig wintra . þæs ðe his cỳn ærest west seaxna land on wealum ge eodon : ;

C383 — Cambridge, Corpus Christi College, 383, fol. 69v

[.]a wæs agangen fram cristes acennednesse cccc. 7 xciiii. wintra þa cerdic 7 cýnric his sunu coman up æt cerdices oran mid fif scipun 7 se cerdic wes elesing . elesa gewising . gewis wiging . wig freawining . frawine freoðagaring freoðagar . bronding . brond bęldæging . beldæg woldening . þes ýmb . vi . gear þes ðe hý up coman hý ge eodan . westseaxna rice 7 þ*æt* wæron þa ærestan cýnegas þe westseaxna land on wealdu*m* ge eodon . 7 he hæfde þ*æt* rice . xvi . gear . þa he ge for þa feng cýnric his sunu to þam rice 7 heold . xxvi . wintra þa he forðferde þa feng ceaulin his sunu to 7 heold . vii . gear . þa he gefor þa feng ceolulf to his broðor 7 he ricsode . xvii . gear . heora cýn geð to cerdice . þa feng cýnegils ceolwulfes broðor sunu to rice 7 heold . xxxi . wintra 7 he onfeng ærest fulwihte westseaxna cýninga . 7 þa feng cenwealh to 7 heold . xxxi . wintra 7 se cenwalh wæs cýnegilses sunu . Ond þa heold seaxburh his cwen an gear þ*æt* rice æfter him . þa feng æscwine to rice þes cýn gæð to cerdice . 7 he heold . ii . gear . þa feng centwine

TR35 — Rochester, Cathedral Library, A.3.5, fols. 7v–8v

Ða wæs agangen fram cristes accennednesse . cccc . 7 xciiii . wintra ða cerdic . 7 cýnric his sunu coman up æt cerdices oran mid . v . scipum . 7 se cerdic wæs elesing . eles g*e*wising . gewis wiging . wig freawining . freawine freoðogaring . freoðegar branding . brond bældæging . bældæg wodening . Þæs ýmb . vi . gear . þæs ðe hý up comon hige eodan west seaxana rice . 7 þ*æt* wæron þa ærestan cýnegas ðe west seaxana land on wealu*m* geeodon . 7 he hæfde þ*æt* rice . xvi . gear . þa he gefor þa feng cýnric his suno to þam rice . 7 heold . xxvi . wintra . þa he forðferde þa feng ceaulin his sunu to . 7 heold . vii . gear . þa he gefor þa feng ceol to . 7 heold . vi . gear . Ða he g*e*for . þa feng ceolulf to his broðor . 7 he ricsode . xvii . [fol. 8r] gear . Heora cýn gæð to cerdice . Ða feng cýnegils ceolwulfes broðor sunu to `ðam´ rice . 7 heold . xxxi . wintra . 7 he onfeng ærest fulluht west seaxana cýninga . 7 þa feng cenwealh to heold . xxxi . wintra . 7 se cenwealh wæs cýnegilses sunu . 7 þa heold sexburh his cwen an gear þ*æt* rice æfter him . Ða feng æscwine to `ðam´ rice . ðæs cýn gæð to cerdice . 7 he heold . ii . gear . Ða feng centwine cýnegilsing to west seaxana rice . 7 ricsode . ix . gear . Ða feng cedwalla to . ðæs cýn gæð to cerdice . 7 heold . iii . gear . Ða feng ine to west sexena rice . ðæs cýn gæð to cerdice 7 heold . xxxvii . wintra . Ða feng æðelheard to . ðæs cýn gæð to cerdice . 7 heold . xiiii . gear . Ða feng cuðred to . ðes cýn gæð to cerdice . 7 heold . xvi . gear . Ða feng sigebirht to . ðæs cýn `gæð´ to cerdice . 7 heold . i . gear . Ða feng cýnulf to `ðam´ rice . ðæs cýn gæð to cerdice . 7 heold . xxxi . wintra . Ða feng beorhtric to `ðam´ rice . ðæs cýn gæð to cerdice . 7 heold . xvi . gear . Ða ecgbýrht feng to `ðam´ rice . 7 heold . xxxvii . wintra . 7 vii . monað . Ða feng aðulf his sunu to þam rice . 7 heold teoðe healf gear . Se aðulf wæs ecgbýrhting . ecgbriht ealhmunding . ealhmund éabing . eaba eopping . ioppa . ingýlding . ingild cenreding . 7 ine cenreding . 7 cuðburh cenredin`g´ . 7 cwenburh cenreding . Cenred ceolwalding . ceolwald cuðwulfing . Cuðwulf cuðwinning . Cuðwine celming . Celm [fol. 8v] cýnricing . Cýnric Creoding . Creoda Cerdicing . Æfter aðulfe feng æthelbald his sunu to ðam rice . 7 heold . v . gear . `Ða feng æþelbýrht [. . . . .] 7 heold . v . gear . [. . . . .]fter him æðelred[. . . . .]v . gear .´ Ða feng ælfred to west seaxana rice . 7 heold . xxviii . healf gear . Hý ealle feower wæron aðulfes suna . æðelbald . æðelbriht . æðe`l´red . 7 ælfred . Æfter ælfrede feng eadwar`d´ his sunu to ða*m* rice . 7 heold xxiiii . wintra . Ða feng ælfwerd eadwarded sunu to . 7 heold . iiii . wucan . Ða feng æþelstan his broðor to . 7 wiglice þæs rices weold . His timan ealne þ*æt* wæs . xiiii . gear . 7 x . wucan . Ða feng eadmund his broðor to ða*m* rice . 7 he heold seofoðe healf gear . Ða feng eadred to 7 heold teoðe healf gear . Æfter ædrede feng eadwig eadmundes sunu to þa*m* rice . 7 heold ðridde healf gear . Ða feng eadgar to . 7 mid wislican wære þæs rices weold `. xvi . gear . 7 viii wucan .´ Æfter him feng eadwerd his sunu to . 7 heold `. iii . gear 7 eahta monþe .´ Ða feng æðelred to . 7 þæs rices weold `. xxxviii . gear .´ Æðelred wæs eadgaring . Eadgar eadmunding . Eadmund eadweording . Eadweard ælfreding . Ælfred aðulfing . Aðulf ecgbýrhting . Ecgbýrht ealmunding . Ealhmund eabing . Eaba eopping . Ioppa ingilding . Ingild cenreding . Cenred ceolwalding . Ceolwald cuðulfing . Cuðulf cuðwining . Cuðwine celming . Celm cinricing . Cinric creoding . Creoda cerdicing . Se cerdic wæs swa ic ær cwæþ se forma þe west sexana land mid wige on wealu*m* geeode . 7 his ofsprýncg dýde swa him gebýrde wæs fæste bewerode þæt he ærost gewann . eac eacan begeat heora anra gewelhwilc sýmle be ðam cræfte þa heom god lænde .

S3 Aligned & regularised text

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     1     2     3  4   5       6    7       8           9    10     11 12     13     14 15     16 17     18
     <L 1>
BL23 ~     ~     ~  ~   ~       ~    ~       ~           ~    ~      ~  ~      ~      ~  ~      ~  ~      ~
BL34 þy    geare þe wæs agan    fram cristes acennednesse cccc wintra 7  xciiii wintra þa cerdic 7  cynric his
C173 þy    geare þe wæs agan    fram cristes acennednesse cccc wintra 7  xciiii wintra þa cerdic 7  cynric his
C383 ~     ~     a  wæs agangen fram cristes acennednesse cccc ~      7  xciiii wintra þa cerdic 7  cynric his
CTA3 ~     ~     ða wæs agangen fram cristes acennednesse cccc ~      7  xciiii wintra þa cerdic 7  cynric his
TR35 ~     ~     ða wæs agangen fram cristes acennednesse cccc ~      7  xciiii wintra þa cerdic 7  cynric his
ULK3 ~     ~     ða wæs agangen fram cristes acennednesse cccc ~      7  xciiii wintra þa cerdic 7  cynric his

     19   20     21 22 23       24   25  26 27     28 29 30     31  32      33    34     35   36       37    38     39

BL23 ~    ~      ~  ~  ~        ~    ~   ~  ~      ~  ~  ~      ~   ~       ~     ~      ~    ~        ~     ~      ~
BL34 sunu cuomon up æt cerdices oran mid v  scipum 7  se cerdic wæs elesing elesa esling esla gewising gewis wiging wig
C173 sunu cuomon up æt cerdices oran mid v  scipum 7  se cerdic wæs elesing elesa esling esla gewising gewis wiging wig
C383 sunu cuomon up æt cerdices oran mid v  scipum 7  se cerdic wæs elesing elesa ~      ~    gewising gewis wiging wig
CTA3 sunu cuomon up æt cerdices oran mid v  scipum 7  se cerdic wæs elesing elesa esling esla gewising gewis wiging wig
TR35 sunu cuomon up æt cerdices oran mid v  scipum 7  se cerdic wæs elesing elesa ~      ~    gewising gewis wiging wig
ULK3 sunu cuomon up æt cerdices oran mid v  scipum 7  se cerdic wæs elesing elesa ~      ~    gewising gewis wiging wig

     40          41        42            43         44        45    46         47     48        49  50  51  52 53   54  55 56
                                                                                   <L 2>
BL23 ~           ~         ~             ~          ~         ~     ~          ~      ~         ~   ~   ~   ~  ~    ~   ~  ~
BL34 freawining freawine friþugaring  friþugar  bronding brond bældæging bældæg wodening ond þæs ymb vi gear þæs þe hie
C173 freawining freawine friþugaring  friþugar  bronding brond bældæging bældæg wodening ond þæs ymb vi gear þæs þe hie
C383 freawining freawine freoðogaring freoðogar bronding brond bældæging bældæg wodening ~   þæs ymb vi gear þæs þe hie
CTA3 freawining freawine freoðogaring freoðogar bronding brond bældæging bældæg wodening ond þæs ymb vi gear ~   þe hie
TR35 freawining freawine freoðogaring freoðogar bronding brond bældæging bældæg wodening ~   þæs ymb vi gear þæs þe hie
ULK3 freawining freawine freoðogaring freoðogar bronding brond bældæging bældæg wodening ~   þæs ymb vi gear þæs þe hie

     57 58     59  60      61         62   63 64  65     66 67      68        69 70         71   72 73     74      75 76

BL23 ~  ~      ~   ~       ~          ~    ~  ~   ~      ~  ~       ~         ~  ~          ~    ~  ~      ~       ~  ~
BL34 up cuomon ~   geeodon westseaxna rice 7  þæt uuærun þa ærestan cyningas þe westseaxna lond on wealum geeodon 7  he
C173 up cuomon ~   geeodon westseaxna rice 7  þæt uuærun þa ærestan cyningas þe westseaxna lond on wealum geeodon 7  he
C383 up cuomon hie geeodon westseaxna rice 7  þæt uuærun þa ærestan cyningas þe westseaxna lond on wealum geeodon 7  he
CTA3 up cuomon hie geeodon westseaxna land 7  þæt uuærun þa ærestan cyningas þe westseaxna lond æt wealum genaman 7  he
TR35 up cuomon hie geeodon westseaxna rice 7  þæt uuærun þa ærestan cyningas þe westseaxna lond on wealum geeodon 7  he
ULK3 up cuomon ~   geeodon westseaxna rice ~  þæt uuærun þa ærestan cyningas þe westseaxna lond on wealum geeodon 7  he
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	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101
																							<L 3>		
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	hæfde	þæt	rice	syx	gear	7	þa	0	he	gefor	~	þa	feng	0	his	sunu	cynric	to	þam	rice	~	~	~	~	~
C173	hæfde	þæt	rice	xvi	gear	7	þa	0	he	gefor	~	þa	feng	0	his	sunu	cynric	to	þam	rice	~	~	~	~	~
C383	hæfde	þæt	rice	xvi	gear	~	þa	0	he	gefor	~	þa	feng	1	his	sunu	cynric	to	þam	rice	7	~	heold	xxvi	wintra
CTA3	hæfde	þæt	rice	xvi	winter	~	þa	1	he	gefor	7	~	feng	0	his	sunu	cynric	to	þam	rice	7	~	heold	xxvi	wintra
TR35	hæfde	þæt	rice	xvi	gear	~	þa	0	he	gefor	~	þa	feng	1	his	sunu	cynric	to	þam	rice	7	~	heold	xxvi	wintra
ULK3	hæfde	þæt	rice	xvi	gear	7	þa	1	he	gefor	7	þa	feng	0	his	sunu	cynric	to	þam	rice	7	hit	heold	xxvii	wintra

	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	~	~	~	~	~	~	~	~	~	~	7	heold	vii	winter	þa	he	gefor	þa	feng	ceol	to	þam	rice
C173	~	~	~	~	~	~	~	~	~	~	7	heold	xvii	winter	~	~	~	~	~	~	~	~	~
C383	þa	he	forðferde	þa	feng	ceaulin	0	his	sunu	to	7	heold	vii	gear	~	~	~	~	~	~	~	~	~
CTA3	þa	he	forðferde	þa	feng	ceaulin	1	his	sunu	to	7	heold	xvii	gear	~	~	~	~	~	~	~	~	~
TR35	þa	he	forðferde	þa	feng	ceaulin	0	his	sunu	to	7	heold	vii	gear	~	~	~	~	~	~	~	~	~
ULK3	þa	he	forðferde	þa	feng	ceaulin	0	his	sunu	to	7	heold	vii	winter	~	~	~	~	~	~	~	~	~

	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	7	heol	seofan	gear	þa	he	gefor	þa	feng	ceol	to	þam	rice	7	heold	vi	gear	þa	hie	gefor	þa	feng	ceolwulf
C173	~	~	~	~	þa	he	gefor	þa	feng	ceol	to	þam	rice	7	heold	vi	gear	þa	hie	gefor	þa	feng	ceolwulf
C383	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	þa	hie	gefor	þa	feng	ceolwulf
CTA3	~	~	~	~	þa	he	gefor	þa	feng	ceol	to	þam	rice	7	heold	v	gear	þa	hie	gefor	þa	feng	ceolwulf
TR35	~	~	~	~	þa	he	gefor	þa	feng	ceol	to	~	~	7	heold	vi	gear	þa	hie	gefor	þa	feng	ceolwulf
ULK3	~	~	~	~	þa	he	gefor	þa	feng	ceol	to	þam	rice	7	heold	vi	gear	þa	hie	gefor	þa	feng	ceolwulf

	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	to	his	broþur	7	he	ricsode	xvii	gear	7	hiera	cyn	gæþ	to	cerdice	þa	feng	cynegils	~	ceolwulfes	broþur
C173	to	his	broþur	7	he	ricsode	xvii	gear	7	hiera	cyn	gæþ	to	cerdice	þa	feng	cynegils	~	ceolwulfes	broþur
C383	to	his	broþur	7	he	ricsode	xvii	gear	~	hiera	cyn	gæþ	to	cerdice	þa	feng	cynegils	~	ceolwulfes	broþur
CTA3	to	his	broþur	7	~	ricsode	xvii	gear	7	hiera	cyn	gæþ	to	cerdice	þa	feng	cynegils	to	ceolwulfes	broþur
TR35	to	his	broþur	7	he	ricsode	xvii	gear	~	hiera	cyn	gæþ	to	cerdice	þa	feng	cynegils	~	ceolwulfes	broþur
ULK3	to	his	broþur	7	he	ricsode	xvii	gear	~	hiera	cyn	gæþ	to	cerdice	þa	feng	cynegils	~	ceolwulfes	broþur

	168	169	170	171	172	173	174	175	176	177	178	179	180 <L 4>	181	182	183	184	185	186
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	sunu	to	~	rice	7	ricsode	xxxi	wintra	7	he	onfeng	ærest	fulwihte	westseaxna	cyninga	7	þa	feng	cenwalh
C173	sunu	to	~	rice	7	ricsode	xxxi	wintra	7	he	onfeng	ærest	fulwihte	westseaxna	cyninga	7	þa	feng	cenwalh
C383	sunu	to	~	rice	7	heold	xxxi	wintra	7	he	onfeng	ærest	fulwihte	westseaxna	cyninga	7	þa	feng	cenwalh
CTA3	sunu	to	~	rice	7	ricsode	xx	wintra	7	he	onfeng	ærest	fulwihte	westseaxna	cyninga	7	þa	feng	cenwalh
TR35	sunu	to	ðam	rice	7	heold	xxxi	wintra	7	he	onfeng	ærest	fulwihte	westseaxna	cyninga	7	þa	feng	cenwalh
ULK3	sunu	to	~	rice	7	hæfde	xxxi	wintra	7	he	onfeng	ærest	fulwihte	westseaxna	cyninga	~	þa	feng	cenwalh

	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	to	~	7	heold	~	xxxi	wintra	7	se	cenwald	wæs	cynegilses	sunu	7	þa	heold	seaxburg	his	cwen	an	gear
C173	to	~	7	heold	~	xxxi	wintra	7	se	cenwalh	wæs	cynegilses	sunu	7	þa	heold	seaxburg	his	cwen	an	gear
C383	to	~	7	heold	~	xxxi	wintra	7	se	cenwalh	wæs	cynegilses	sunu	7	þa	heold	seaxburg	his	cwen	an	gear
CTA3	to	~	7	heold	~	xxxi	wintra	~	se	cenwalh	wæs	cynegilses	sunu	7	þa	heold	seaxburg	~	cwen	an	gear
TR35	to	~	7	heold	~	xxxi	wintra	7	se	cenwalh	wæs	cynegilses	sunu	7	þa	heold	seaxburg	his	cwen	an	gear
ULK3	to	rice	7	heold	hit	þrittig	wintra	~	se	cenwalh	wæs	cynegilses	sunu	7	þa	heold	seaxburg	his	cwen	an	gear

	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230 <L 5>
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	þæt	rice	æfter	him	þa	feng	æscwine	to	~	rice	þæs	cyn	gæþ	to	cerdice	7	~	heold	ii	gear	þa	feng	centwine
C173	þæt	rice	æfter	him	þa	feng	æscwine	to	~	rice	þæs	cyn	gæþ	to	cerdice	7	~	heold	ii	gear	þa	feng	centwine
C383	þæt	rice	æfter	him	þa	feng	æscwine	to	~	rice	þæs	cyn	gæþ	to	cerdice	7	he	heold	ii	gear	þa	feng	centwine
CTA3	þæt	rice	æfter	him	þa	feng	æscwine	to	~	rice	þæs	cyn	gæþ	to	cerdice	7	~	heold	ii	gear	þa	feng	centwine
TR35	þæt	rice	æfter	him	þa	feng	æscwine	to	ðam	rice	þæs	cyn	gæþ	to	cerdice	7	he	heold	ii	gear	þa	feng	centwine
ULK3	þæt	rice	æfter	him	þa	feng	æscwine	to	~	rice	þæs	cyn	gæþ	to	cerdice	7	he	heold	ii	gear	þa	feng	centwine

	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	0	to	westseaxna	rice	cynegilsing	7	ricsode	vii	gear	þa	feng	ceadwalla	to	þam	rice	þæs	cyn	gæþ	to	cerdice
C173	0	to	westseaxna	rice	cynegilsing	7	ricsode	vii	gear	þa	feng	ceadwalla	to	þam	rice	þæs	cyn	gæþ	to	cerdice
C383	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
CTA3	0	to	westseaxna	rice	cynegilsing	7	ricsode	ix	gear	þa	feng	ceadwalla	to	þam	rice	þæs	cyn	gæþ	to	cerdice
TR35	1	to	westseaxna	rice	cynegilsing	7	ricsode	ix	gear	þa	feng	ceadwalla	to	~	~	þæs	cyn	gæþ	to	cerdice
ULK3	0	to	westseaxna	rice	cynegilsing	7	ricsode	ix	gear	þa	feng	ceadwalla	to	þam	rice	þæs	cyn	gæþ	to	cerdice

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     251 252 253   254 255  256 257  258 259 260        261  262 263 264 265 266      267 268 269   270         271

BL23 ~   ~   ~     ~   ~    ~   ~    ~   ~   ~          ~    ~   ~   ~   ~   ~        ~   ~   ~     ~           ~
BL34 7   ~   heold twa gear ða  feng ine to  westseaxna rice þæs cyn gæþ to  ceardice 7   ~   heold syx7ðritti  wintra
C173 7   ~   heold iii gear ða  feng ine to  seaxna     rice þæs cyn gæþ to  ceardice 7   ~   heold xxxvii      wintra
C383 ~   ~   ~     ~   ~    ~   ~    ~   ~   ~          ~    ~   ~   ~   ~   ~        ~   ~   ~     ~           ~
CTA3 7   ~   heold iii gear ða  feng ine to  westseaxna rice þæs cyn gæþ to  ceardice 7   ~   heold xxxvii      wintra
TR35 7   ~   heold iii gear ða  feng ine to  westseaxna rice þæs cyn gæþ to  ceardice 7   ~   heold xxxvii      wintra
ULK3 7   he  heold iii gear ða  feng ine to  þam        rice þæs cyn gæþ to  ceardice 7   he  heold twa7þrittig wintra

     272 273  274       275 276  277 278 279 280 281      282 283   284   285    286 287  288    289 290 291 292 293

BL23 ~   ~    ~         ~   ~    ~   ~   ~   ~   ~        ~   ~     ~     ~      ~   ~    ~      ~   ~   ~   ~   ~
BL34 þa  feng æþelheard to  ~    þæs cyn gæð to  ceardice 7   heold xiiii winter þa  feng cuþred to  þæs cyn gæð to
C173 þa  feng æþelheard to  ~    þæs cyn gæð to  ceardice 7   heold xiiii winter þa  feng cuþred to  þæs cyn gæð to
C383 ~   ~    ~         ~   ~    ~   ~   ~   ~   ~        ~   ~     ~     ~      ~   ~    ~      ~   ~   ~   ~   ~
CTA3 þa  feng æþelheard to  ~    þæs cyn gæð to  ceardice 7   heold ~     ~      ~   ~    ~      ~   ~   ~   ~   ~
TR35 þa  feng æþelheard to  ~    þæs cyn gæð to  ceardice 7   heold xiiii gear   þa  feng cuþred to  þæs cyn gæð to
ULK3 þa  feng æþelheard to  rice ~   ~   ~   ~   ~        7   heold xiiii winter þa  feng cuþred to  þæs cyn gæð to

     294     295 296 297   298  299    300 301  302       303 304 305 306 307 308     309 310 311   312 313  314 315

BL23 ~       ~   ~   ~     ~    ~      ~   ~    ~         ~   ~   ~   ~   ~   ~       ~   ~   ~     ~   ~    ~   ~
BL34 cerdice 7   ~   heold xvii gear   þa  feng sigebryht to  þæs cyn gæð to  cerdice 7   ~   heold i   gear þa  feng
C173 cerdice 7   ~   heold xvii gear   þa  feng sigebryht to  þæs cyn gæð to  cerdice 7   ~   heold i   gear þa  feng
C383 ~       ~   ~   ~     ~    ~      ~   ~    ~         ~   ~   ~   ~   ~   ~       ~   ~   ~     ~   ~    ~   ~
CTA3 ~       ~   ~   ~     xvi  gear   þa  feng sigebryht to  þæs cyn gæð to  cerdice 7   ~   heold i   gear þa  feng
TR35 cerdice 7   ~   heold xvi  gear   þa  feng sigebryht to  þæs cyn gæð to  cerdice 7   ~   heold i   gear þa  feng
ULK3 cerdice 7   he  heold xvi  winter þa  feng sigebryht to  þæs cyn gæð to  cerdice 7   he  heold i   gear þa  feng

     316      317 318 319  320 321 322 323 324      325 326 327   328 329  330    331 332  333       334 335 336  337

BL23 ~        ~   ~   ~    ~   ~   ~   ~   ~        ~   ~   ~     ~   ~    ~      ~   ~    ~         ~   ~   ~    ~
BL34 cynewulf to  ~   rice þæs cyn gæð to  ceardice 7   ~   heold 7   xxxi wintra þa  feng beorhtric to  ~   rice þæs
C173 cynewulf to  ~   rice þæs cyn gæð to  ceardice 7   ~   heold ~   xxxi wintra þa  feng beorhtric to  ~   rice þæs
C383 ~        ~   ~   ~    ~   ~   ~   ~   ~        ~   ~   ~     ~   ~    ~      ~   ~    ~         ~   ~   ~    ~
CTA3 cynewulf to  ~   ~    þæs cyn gæð to  ceardice 7   ~   heold ~   xxxi wintra þa  feng beorhtric to  ~   rice þæs
TR35 cynewulf to  ðam rice þæs cyn gæð to  ceardice 7   ~   heold ~   xxxi wintra þa  feng beorhtric to  ðam rice þæs
ULK3 cynewulf to  ~   rice þæs cyn gæð to  ceardice 7   he  heold ~   xxxi geara  þa  feng beorhtric to  ~   rice ~
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	338	339	340	341	342	343	344	345	346 <L 6>	347	348	349	350	351	352	353	354	355	356	357	358	359
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	rice	7	heold	xxxvii	wintra	7	vii
BL34	cyn	gæð	to	cerdice	7	~	heold	xvi	gear	þa	0	feng	ecgbryht	to	þam	rice	7	heold	xxxvii	wintra	7	vii
C173	cyn	gæð	to	cerdice	7	~	heold	xvi	gear	þa	0	feng	ecgbryht	to	þam	rice	7	heold	xxxvii	wintra	7	vii
C383	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
CTA3	cyn	gæð	to	cerdice	7	~	heold	xvi	gear	þa	0	feng	ecgbryht	to	þam	rice	7	heold	xxxvii	wintra	7	vii
TR35	cyn	gæð	to	cerdice	7	~	heold	xvi	gear	þa	1	feng	ecgbryht	to	þam	rice	7	heold	xxxvii	wintra	7	vii
ULK3	~	~	~	~	7	he	heold	xvi	gear	þa	0	feng	ecgbryht	to	þam	rice	7	heold	xxxvii	geara	7	vii

	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380
BL23	monaþ	7	þa	feng	æþelwulf	0	his	sunu	to	~	~	7	heold	xviiii	healf	gear	ond	se	æþelwulf	wæs	ecgbryhting
BL34	monaþ	7	þa	feng	æþelwulf	1	his	sunu	to	~	~	7	heold	xviiii	healf	gear	~	se	æþelwulf	wæs	ecgbryhting
C173	monaþ	7	þa	feng	æþelwulf	0	his	sunu	to	~	~	7	heold	xviiii	healf	gear	~	se	æþelwulf	wæs	ecgbryhting
C383	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
CTA3	monaþ	~	þa	feng	æþelwulf	0	his	sunu	to	~	~	7	heold	xviiii	healf	gear	~	se	æþelwulf	wæs	ecgbryhting
TR35	monaþ	~	þa	feng	æþelwulf	0	his	sunu	to	þam	rice	7	heold	teoðe	healf	gear	~	se	æþelwulf	wæs	ecgbryhting
ULK3	monaþ	7	þa	feng	æþelwulf	0	his	sunu	to	~	~	7	heold	xviiii	healf	gear	ond	se	æþelwulf	wæs	ecgbryhting

	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395
BL23	ecgbryht	ealhmunding	ealhmund	eabing	eaba	eopping	eoppa	ingilding	ingild	cenreding	~	~	~	~	~
BL34	ecgbryht	ealhmunding	ealhmund	eafing	eafa	eopping	eoppa	ingilding	ingild	cenreding	7	ine	cenreding	7	cuþburg
C173	ecgbryht	ealhmunding	ealhmund	eafing	eafa	eopping	eoppa	ingilding	ingild	cenreding	7	ine	cenreding	7	cuþburg
C383	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
CTA3	ecgbryht	ealhmunding	ealhmund	eafing	eafa	eopping	eoppa	ingilding	ingild	cenreding	7	ine	cenreding	7	cuþburg
TR35	ecgbryht	ealhmunding	ealhmund	eabing	eaba	eopping	eoppa	ingilding	ingild	cenreding	7	ine	cenreding	7	cuþburg
ULK3	ecgbryht	ealhmunding	ealhmund	eabing	eaba	eopping	eoppa	ingilding	ingild	cenreding	7	ine	cenreding	7	cuþburg

	396	397	398	399	400	401	402	403	404	405	406	407
BL23	~	~	~	~	cenred	ceolwalding	ceolwald	cuþwulfing	cuþwulf	cuþwining	cuþwine	ceaulniing
BL34	cenreding	7	cuenburg	cenreding	cenred	ceolwalding	ceolwald	cuþwulfing	cuþwulf	cuþwining	cuþwine	celming
C173	cenreding	7	cuenburg	cenreding	cenred	ceolwalding	ceolwald	cuþwulfing	cuþwulf	cuþwining	cuþwine	celming
C383	~	~	~	~	~	~	~	~	~	~	~	~
CTA3	cenreding	7	cuenburg	cenreding	cenred	ceolwalding	ceolwald	cuþwulfing	cuþwulf	cuþwining	cuþwine	celming
TR35	cenreding	7	cuenburg	cenreding	cenred	ceolwalding	ceolwald	cuþwulfing	cuþwulf	cuþwining	cuþwine	celming
ULK3	cenreding	7	cuenburg	cenreding	cenred	ceolwalding	ceolwald	cuþwulfing	cuþwulf	wining	cuþwine	celming

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     408      409       410    411      412    413       414   415    416  417      418 419  420 421 422  423 424   425
                                                <L 7>
BL23 ceaulin cynricing cynric creoding creoda cerdicing ond   þa     feng æþelbald his sunu to  ~   ~    7   heold v
BL34 celm    cynricing cynric ~       ~      cerdicing ond   þa     feng æþelbald his sunu to  ~   rice 7   heold v
C173 celm    cynricing cynric ~       ~      cerdicing ond   þa     feng æþelbald his sunu to  ~   rice 7   heold v
C383 ~       ~         ~      ~       ~      ~         ~     ~      ~    ~        ~   ~    ~   ~   ~    ~   ~     ~
CTA3 celm    cynricing cynric creoding creoda cerdicing ond   þa     feng æþelbald his sunu to  ~   ~    7   heold v
TR35 celm    cynricing cynric creoding creoda cerdicing æfter aðulfe feng æþelbald his sunu to  ðam rice 7   heold v
ULK3 celm    cynricing cynric creoding creoda cerdicing ~     þa     feng æþelbald his sunu to  ~   rice 7   heold v


     426  427 428  429       430 431 432    433 434  435 436   437 438  439   440   441    442 443   444    445 446  447
                                                                      <L 8>
BL23 gear þa  feng æþelbryht 0   ~   broþur to  rice 7   heold v   gear þa    feng æþered ~   his   ~      to  rice 7
BL34 gear þa  feng æþelbryht 0   his broþur to  ~    7   heold v   gear þa    feng æþered to  hiera broþur to  rice 7
C173 gear þa  feng æþelbryht 0   his broþur to  ~    7   heold v   gear þa    feng æþered ~   hiera broþur to  rice 7
C383 ~    ~   ~    ~         ~   ~   ~      ~   ~    ~   ~     ~   ~     ~    ~      ~   ~   ~      ~   ~    ~
CTA3 gear þa  feng æþelbryht 0   his broþur to  ~    7   heold v   gear ~     ~    ~      ~   ~   ~      ~   ~    ~
TR35 gear þa  feng æþelbryht ~   ~   ~      ~   ~    7   heold v   gear æfter him  æþered ~   ~   ~      ~   ~    ~
ULK3 gear þa  feng æþelbryht 1   his broþur to  ~    7   heold v   gear þa    feng æþered ~   his   broþur to  rice 7


     448   449 450  451 452  453    454   455    456 457  458 459 460 461     462 463   464        465    466 467 468

BL23 heold v   gear þa  feng ælfred hiera broþur ~   ~    7   þa  wæs agan    his ielde xxiii      wintra 7   ccc ~
BL34 heold v   gear þa  feng ælfred hiera broþur to  rice 7   þa  wæs agan    his ielde twa7twenti wintra 7   ccc 7
C173 heold v   gear þa  feng ælfred hiera broþur to  rice 7   þa  wæs agan    his ielde xxiii      wintra 7   ccc 7
C383 ~     ~   ~    ~   ~    ~      ~     ~      ~   ~    ~   ~   ~   ~       ~   ~     ~          ~      ~   ~   ~
CTA3 ~     ~   ~    þa  feng ælfred hiera broþur to  ~    ~   ~   ~   ~   ~       ~   ~     ~          ~      ~   ~   ~
TR35 ~     v   gear ~   ~    ~      ~     ~      ~   ~    ~   ~   ~   ~       ~   ~     ~          ~      ~   ~   ~
ULK3 heold v   gear þa  feng ælfred hiera broþur to  rice 7   þa  wæs agangen his ielde xxiii      wintra 7   ccc 7


     469  470    471 472 473 474 475   476        477  478 479    480     481   482   483   484     485   486 487 488
                                                                            <L 9>
BL23 ~    wintra þæs þe  his cyn ærest westseaxna lond on  wealum geeodon ~     ~     ~     ~       ~     ~   ~   ~
BL34 xcvi wintra þæs þe  his cyn ærest westseaxna lond on  wealum geeodon ~     ~     ~     ~       ~     ~   ~   ~
C173 xcvi wintra þæs þe  his cyn ærest westseaxna lond on  wealum geeodon ~     ~     ~     ~       ~     ~   ~   ~
C383 ~    ~      ~   ~   ~   ~   ~     ~          ~    ~   ~      ~       ~     ~     ~     ~       ~     ~   ~   ~
CTA3 ~    ~      ~   ~   ~   ~   ~     ~          ~    ~   ~      ~       7     heold oþran healfan geare læs þe  .
TR35 ~    ~      ~   ~   ~   ~   ~     ~          ~    ~   ~      ~       ~     ~     ~     ~       ~     ~   ~   ~
ULK3 xcvi wintra þæs þe  his cyn ærest westseaxna lond on  wealum geeodon ~     ~     ~     ~       ~     ~   ~   ~
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     489 490 491    492 493 494  495      496 497 498       499 500 501   502 503    504 505    506 507 508 509

BL23 ~   ~   ~      ~   ~   ~    ~        ~   ~   ~         ~   ~   ~     ~   ~      ~   ~      ~   ~   ~   ~
BL34 ~   ~   ~      ~   ~   ~    ~        ~   ~   ~         ~   ~   ~     ~   ~      ~   ~      ~   ~   ~   ~
C173 ~   ~   ~      ~   ~   ~    ~        ~   ~   ~         ~   ~   ~     ~   ~      ~   ~      ~   ~   ~   ~
C383 ~   ~   ~      ~   ~   ~    ~        ~   ~   ~         ~   ~   ~     ~   ~      ~   ~      ~   ~   ~   ~
CTA3 xxx .   wintra .   þa  feng eadweard to  .   ælfreding .   7   heold .   xxiiii .   wintra .   ða  he  forðferde
TR35 ~   ~   ~      ~   ~   ~    ~        ~   ~   ~         ~   ~   ~     ~   ~      ~   ~      ~   ~   ~   ~
ULK3 ~   ~   ~      ~   ~   ~    ~        ~   ~   ~         ~   ~   ~     ~   ~      ~   ~      ~   ~   ~   ~

     510 511 512  513      514 515 516  517 518 519   520 521   522 523  524 525 526 527 528   529 530 531 532 533

BL23 ~   ~   ~    ~        ~   ~   ~    ~   ~   ~     ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~   ~   ~
BL34 ~   ~   ~    ~        ~   ~   ~    ~   ~   ~     ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~   ~   ~
C173 ~   ~   ~    ~        ~   ~   ~    ~   ~   ~     ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~   ~   ~
C383 ~   ~   ~    ~        ~   ~   ~    ~   ~   ~     ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~   ~   ~
CTA3 .   þa  feng æþelstan to  his sunu .   7   heold .   xiiii .   gear .   7   vii .   wucan .   7   iii .   dagas.
TR35 ~   ~   ~    ~        ~   ~   ~    ~   ~   ~     ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~   ~   ~
ULK3 ~   ~   ~    ~        ~   ~   ~    ~   ~   ~     ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~   ~   ~

     534 535  536     537 538 539    540 541  542     543   544  545   546 547 548 549    550 551 552  553    554

BL23 ~   ~    ~       ~   ~   ~      ~   ~    ~       ~     ~    ~     ~   ~   ~   ~      ~   ~   ~    ~      ~
BL34 ~   ~    ~       ~   ~   ~      ~   ~    ~       ~     ~    ~     ~   ~   ~   ~      ~   ~   ~    ~      ~
C173 ~   ~    ~       ~   ~   ~      ~   ~    ~       ~     ~    ~     ~   ~   ~   ~      ~   ~   ~    ~      ~
C383 ~   ~    ~       ~   ~   ~      ~   ~    ~       ~     ~    ~     ~   ~   ~   ~      ~   ~   ~    ~      ~
CTA3 Þa  feng eadmund to  his broþor 7   heol seofoðe healf gear butan .   ii  .   nihtum .   ða  feng eadred his
TR35 ~   ~    ~       ~   ~   ~      ~   ~    ~       ~     ~    ~     ~   ~   ~   ~      ~   ~   ~    ~      ~
ULK3 ~   ~    ~       ~   ~   ~      ~   ~    ~       ~     ~    ~     ~   ~   ~   ~      ~   ~   ~    ~      ~

     555    556 557 558   559 560 561 562  563 564 565 566 567   568 569 570  571    572 573 574       575  576    577

BL23 ~      ~   ~   ~     ~   ~   ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~      ~   ~   ~         ~    ~      ~
BL34 ~      ~   ~   ~     ~   ~   ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~      ~   ~   ~         ~    ~      ~
C173 ~      ~   ~   ~     ~   ~   ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~      ~   ~   ~         ~    ~      ~
C383 ~      ~   ~   ~     ~   ~   ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~      ~   ~   ~         ~    ~      ~
CTA3 broþor to  7   heold .   ix  .   gear .   7   vi  .   wucan .   Þa  feng eadwig to  .   eadmundes sunu cinges .
TR35 ~      ~   ~   ~     ~   ~   ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~      ~   ~   ~         ~    ~      ~
ULK3 ~      ~   ~   ~     ~   ~   ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~      ~   ~   ~         ~    ~      ~
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     578 579   580 581 582 583  584 585 586   587 588    589 590   591 592 593 594   595 596 597 598       599 600 601

BL23 ~   ~     ~   ~   ~   ~    ~   ~   ~     ~   ~      ~   ~     ~   ~   ~   ~     ~   ~   ~   ~         ~   ~   ~
BL34 ~   ~     ~   ~   ~   ~    ~   ~   ~     ~   ~      ~   ~     ~   ~   ~   ~     ~   ~   ~   ~         ~   ~   ~
C173 ~   ~     ~   ~   ~   ~    ~   ~   ~     ~   ~      ~   ~     ~   ~   ~   ~     ~   ~   ~   ~         ~   ~   ~
C383 ~   ~     ~   ~   ~   ~    ~   ~   ~     ~   ~      ~   ~     ~   ~   ~   ~     ~   ~   ~   ~         ~   ~   ~
CTA3 7   heold .   iii .   gear .   7   xxxvi .   wucena .   buton .   ii  .   dagum .   þa  he  forðferde .   þa  feng
TR35 ~   ~     ~   ~   ~   ~    ~   ~   ~     ~   ~      ~   ~     ~   ~   ~   ~     ~   ~   ~   ~         ~   ~   ~
ULK3 ~   ~     ~   ~   ~   ~    ~   ~   ~     ~   ~      ~   ~     ~   ~   ~   ~     ~   ~   ~   ~         ~   ~   ~

     602    603 604 605    606 607   608 609 610 611  612 613  614 615   616 617 618 619 620  621 622 623 624       625

BL23 ~      ~   ~   ~      ~   ~     ~   ~   ~   ~    ~   ~    ~   ~     ~   ~   ~   ~   ~    ~   ~   ~   ~         ~
BL34 ~      ~   ~   ~      ~   ~     ~   ~   ~   ~    ~   ~    ~   ~     ~   ~   ~   ~   ~    ~   ~   ~   ~         ~
C173 ~      ~   ~   ~      ~   ~     ~   ~   ~   ~    ~   ~    ~   ~     ~   ~   ~   ~   ~    ~   ~   ~   ~         ~
C383 ~      ~   ~   ~      ~   ~     ~   ~   ~   ~    ~   ~    ~   ~     ~   ~   ~   ~   ~    ~   ~   ~   ~         ~
CTA3 eadgar to  his broðor 7   heold .   xvi .   gear 7   viii .   wucan .   7   ii  .   niht .   ða  he  forðferde þa
TR35 ~      ~   ~   ~      ~   ~     ~   ~   ~   ~    ~   ~    ~   ~     ~   ~   ~   ~   ~    ~   ~   ~   ~         ~
ULK3 ~      ~   ~   ~      ~   ~     ~   ~   ~   ~    ~   ~    ~   ~     ~   ~   ~   ~   ~    ~   ~   ~   ~         ~

     626  627      628 629      630  631 632   633    634 635 636 637 638 639 640  641    642 643  644     645  646 647
                                             <L 10>
BL23 ~    ~        ~   ~        ~    ~   ~     ~      ~   ~   ~   ~   ~   ~   ~    ~      ~   ~    ~       ~    ~   ~
BL34 ~    ~        ~   ~        ~    ~   ~     ~      ~   ~   ~   ~   ~   ~   ~    ~      ~   ~    ~       ~    ~   ~
C173 ~    ~        ~   ~        ~    ~   ~     ~      ~   ~   ~   ~   ~   ~   ~    ~      ~   ~    ~       ~    ~   ~
C383 ~    ~        ~   ~        ~    ~   ~     ~      ~   ~   ~   ~   ~   ~   ~    ~      ~   ~    ~       ~    ~   ~
CTA3 feng eadweard to  eadgares sunu 7   heold ~      ~   ~   ~   ~   ~   ~   ~    ~      ~   ~    ~       ~    ~   ~
TR35 ~    ~        ~   ~        ~    ~   ~     ~      ~   ~   ~   ~   .'  Ða  feng ælfred to  west seaxana rice .   7
ULK3 ~    ~        ~   ~        ~    ~   ~     ~      ~   ~   ~   ~   ~   ~   ~    ~      ~   ~    ~       ~    ~   ~

     648   649 650    651 652   653  654 655 656   657    658   659     660  661 662      663 664       665 666

BL23 ~     ~   ~      ~   ~     ~    ~   ~   ~     ~      ~     ~       ~    ~   ~        ~   ~         ~   ~
BL34 ~     ~   ~      ~   ~     ~    ~   ~   ~     ~      ~     ~       ~    ~   ~        ~   ~         ~   ~
C173 ~     ~   ~      ~   ~     ~    ~   ~   ~     ~      ~     ~       ~    ~   ~        ~   ~         ~   ~
C383 ~     ~   ~      ~   ~     ~    ~   ~   ~     ~      ~     ~       ~    ~   ~        ~   ~         ~   ~
CTA3 ~     ~   ~      ~   ~     ~    ~   ~   ~     ~      ~     ~       ~    ~   ~        ~   ~         ~   ~
TR35 heold .   xxviii .   healf gear .   Hy  ealle feower wæron aðulfes suna .   æðelbald .   æðelbriht .   æðe`l'red
ULK3 ~     ~   ~      ~   ~     ~    ~   ~   ~     ~      ~     ~       ~    ~   ~        ~   ~         ~   ~
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     667 668 669    670 671   672     673  674       675 676  677 678 679  680 681 682   683    684 685    686 687 688

BL23 ~   ~   ~      ~   ~     ~       ~    ~         ~   ~    ~   ~   ~    ~   ~   ~     ~      ~   ~      ~   ~   ~
BL34 ~   ~   ~      ~   ~     ~       ~    ~         ~   ~    ~   ~   ~    ~   ~   ~     ~      ~   ~      ~   ~   ~
C173 ~   ~   ~      ~   ~     ~       ~    ~         ~   ~    ~   ~   ~    ~   ~   ~     ~      ~   ~      ~   ~   ~
C383 ~   ~   ~      ~   ~     ~       ~    ~         ~   ~    ~   ~   ~    ~   ~   ~     ~      ~   ~      ~   ~   ~
CTA3 ~   ~   ~      ~   ~     ~       ~    ~         ~   ~    ~   ~   ~    ~   ~   ~     ~      ~   ~      ~   ~   ~
TR35 .   7   ælfred .   Æfter ælfrede feng eadwar`d' his sunu to  ðam rice .   7   heold xxiiii .   wintra .   Ða  feng
ULK3 ~   ~   ~      ~   ~     ~       ~    ~         ~   ~    ~   ~   ~    ~   ~   ~     ~      ~   ~      ~   ~   ~

     689     690       691  692 693 694 695   696 697  698 699   700 701 702  703      704 705    706 707 708 709

BL23 ~       ~         ~    ~   ~   ~   ~     ~   ~    ~   ~     ~   ~   ~    ~        ~   ~      ~   ~   ~   ~
BL34 ~       ~         ~    ~   ~   ~   ~     ~   ~    ~   ~     ~   ~   ~    ~        ~   ~      ~   ~   ~   ~
C173 ~       ~         ~    ~   ~   ~   ~     ~   ~    ~   ~     ~   ~   ~    ~        ~   ~      ~   ~   ~   ~
C383 ~       ~         ~    ~   ~   ~   ~     ~   ~    ~   ~     ~   ~   ~    ~        ~   ~      ~   ~   ~   ~
CTA3 ~       ~         ~    ~   ~   ~   ~     ~   ~    ~   ~     ~   ~   ~    ~        ~   ~      ~   ~   ~   ~
TR35 ælfwerd eadwarded sunu to  .   7   heold .   iiii .   wucan .   Ða  feng æþelstan his broðor to  .   7   wiglice
ULK3 ~       ~         ~    ~   ~   ~   ~     ~   ~    ~   ~     ~   ~   ~    ~        ~   ~      ~   ~   ~   ~

     710 711   712   713 714 715   716   717 718 719 720   721 722  723 724 725 726 727   728 729 730  731     732

BL23 ~   ~     ~     ~   ~   ~     ~     ~   ~   ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~       ~
BL34 ~   ~     ~     ~   ~   ~     ~     ~   ~   ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~       ~
C173 ~   ~     ~     ~   ~   ~     ~     ~   ~   ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~       ~
C383 ~   ~     ~     ~   ~   ~     ~     ~   ~   ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~       ~
CTA3 ~   ~     ~     ~   ~   ~     ~     ~   ~   ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~       ~
TR35 þæs rices weold .   His timan ealne þæt wæs .   xiiii .   gear .   7   x   .   wucan .   Ða  feng eadmund his
ULK3 ~   ~     ~     ~   ~   ~     ~     ~   ~   ~   ~     ~   ~    ~   ~   ~   ~   ~     ~   ~   ~    ~       ~

     733    734 735 736  737 738 739 740   741     742   743  744 745 746  747    748 749 750   751   752   753  754

BL23 ~      ~   ~   ~    ~   ~   ~   ~     ~       ~     ~    ~   ~   ~    ~      ~   ~   ~     ~     ~     ~    ~
BL34 ~      ~   ~   ~    ~   ~   ~   ~     ~       ~     ~    ~   ~   ~    ~      ~   ~   ~     ~     ~     ~    ~
C173 ~      ~   ~   ~    ~   ~   ~   ~     ~       ~     ~    ~   ~   ~    ~      ~   ~   ~     ~     ~     ~    ~
C383 ~      ~   ~   ~    ~   ~   ~   ~     ~       ~     ~    ~   ~   ~    ~      ~   ~   ~     ~     ~     ~    ~
CTA3 ~      ~   ~   ~    ~   ~   ~   ~     ~       ~     ~    ~   ~   ~    ~      ~   ~   ~     ~     ~     ~    ~
TR35 broðor to  ðam rice .   7   he  heold seofoðe healf gear .   Ða  feng eadred to  7   heold teoðe healf gear .
ULK3 ~      ~   ~   ~    ~   ~   ~   ~     ~       ~     ~    ~   ~   ~    ~      ~   ~   ~     ~     ~     ~    ~
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     755   756    757  758    759       760  761 762 763  764 765 766   767    768   769  770 771 772  773    774 775

BL23 ~     ~      ~    ~      ~         ~    ~   ~   ~    ~   ~   ~     ~      ~     ~    ~   ~   ~    ~      ~   ~
BL34 ~     ~      ~    ~      ~         ~    ~   ~   ~    ~   ~   ~     ~      ~     ~    ~   ~   ~    ~      ~   ~
C173 ~     ~      ~    ~      ~         ~    ~   ~   ~    ~   ~   ~     ~      ~     ~    ~   ~   ~    ~      ~   ~
C383 ~     ~      ~    ~      ~         ~    ~   ~   ~    ~   ~   ~     ~      ~     ~    ~   ~   ~    ~      ~   ~
CTA3 ~     ~      ~    ~      ~         ~    ~   ~   ~    ~   ~   ~     ~      ~     ~    ~   ~   ~    ~      ~   ~
TR35 Æfter ædrede feng eadwig eadmundes sunu to  þam rice .   7   heold ðridde healf gear .   Ða  feng eadgar to  .
ULK3 ~     ~      ~    ~      ~         ~    ~   ~   ~    ~   ~   ~     ~      ~     ~    ~   ~   ~    ~      ~   ~

     776 777 778      779  780 781   782   783 784 785 786  787 788 789  790   791 792   793 794  795     796 797  798

BL23 ~   ~   ~        ~    ~   ~     ~     ~   ~   ~   ~    ~   ~   ~    ~     ~   ~     ~   ~    ~       ~   ~    ~
BL34 ~   ~   ~        ~    ~   ~     ~     ~   ~   ~   ~    ~   ~   ~    ~     ~   ~     ~   ~    ~       ~   ~    ~
C173 ~   ~   ~        ~    ~   ~     ~     ~   ~   ~   ~    ~   ~   ~    ~     ~   ~     ~   ~    ~       ~   ~    ~
C383 ~   ~   ~        ~    ~   ~     ~     ~   ~   ~   ~    ~   ~   ~    ~     ~   ~     ~   ~    ~       ~   ~    ~
CTA3 ~   ~   ~        ~    ~   ~     ~     ~   ~   ~   ~    ~   ~   ~    ~     ~   ~     ~   ~    ~       ~   ~    ~
TR35 7   mid wislican wære þæs rices weold `.  xvi .   gear .   7   viii wucan .' Æfter him feng eadwerd his sunu to
ULK3 ~   ~   ~        ~    ~   ~     ~     ~   ~   ~   ~    ~   ~   ~    ~     ~   ~     ~   ~    ~       ~   ~    ~

     799 800 801   802 803 804 805  806 807   808   809 810 811  812     813 814 815 816 817   818   819 820     821

BL23 ~   ~   ~     ~   ~   ~   ~    ~   ~     ~     ~   ~   ~    ~       ~   ~   ~   ~   ~     ~     ~   ~       ~
BL34 ~   ~   ~     ~   ~   ~   ~    ~   ~     ~     ~   ~   ~    ~       ~   ~   ~   ~   ~     ~     ~   ~       ~
C173 ~   ~   ~     ~   ~   ~   ~    ~   ~     ~     ~   ~   ~    ~       ~   ~   ~   ~   ~     ~     ~   ~       ~
C383 ~   ~   ~     ~   ~   ~   ~    ~   ~     ~     ~   ~   ~    ~       ~   ~   ~   ~   ~     ~     ~   ~       ~
CTA3 ~   ~   ~     ~   ~   ~   ~    ~   ~     ~     ~   ~   ~    ~       ~   ~   ~   ~   ~     ~     ~   ~       ~
TR35 .   7   heold `.  iii .   gear 7   eahta monþe .' Ða  feng æðelred to  .   7   þæs rices weold `.  xxxviii .
ULK3 ~   ~   ~     ~   ~   ~   ~    ~   ~     ~     ~   ~   ~    ~       ~   ~   ~   ~   ~     ~     ~   ~       ~

     822  823 824     825 826       827 828    829        830 831     832         833 834      835       836 837

BL23 ~    ~   ~       ~   ~         ~   ~      ~          ~   ~       ~           ~   ~        ~         ~   ~
BL34 ~    ~   ~       ~   ~         ~   ~      ~          ~   ~       ~           ~   ~        ~         ~   ~
C173 ~    ~   ~       ~   ~         ~   ~      ~          ~   ~       ~           ~   ~        ~         ~   ~
C383 ~    ~   ~       ~   ~         ~   ~      ~          ~   ~       ~           ~   ~        ~         ~   ~
CTA3 ~    ~   ~       ~   ~         ~   ~      ~          ~   ~       ~           ~   ~        ~         ~   ~
TR35 gear .' Æðelred wæs eadgaring .   eadgar eadmunding .   eadmund eadweording .   eadweard ælfreding .   ælfred
ULK3 ~    ~   ~       ~   ~         ~   ~      ~          ~   ~       ~           ~   ~        ~         ~   ~
```

	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
C173	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
C383	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
CTA3	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
TR35	aðulfing	.	aðulf	ecgbyrhting	.	ecgbyrht	ealmunding	.	ealhmund	eabing	.	eaba	eopping	.	ioppa	ingilding
ULK3	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~

	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
C173	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
C383	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
CTA3	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
TR35	.	ingild	cenreding	.	cenred	ceolwalding	.	ceolwald	cuðulfing	.	cuðulf	cuðwining	.	cuðwine	celming	.
ULK3	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~

	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
C173	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
C383	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
CTA3	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
TR35	celm	cinricing	.	cinric	creoding	.	creoda	cerdicing	.	Se	cerdic	wæs	swa	ic	ær	cwæþ	se	forma	þe	west
ULK3	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~

	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
C173	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
C383	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
CTA3	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
TR35	sexana	land	mid	wige	on	wealum	geeode	.	7	his	ofspryncg	dyde	swa	him	gebyrde	wæs	fæste	bewerode	þæt	he	ærost
ULK3	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~

	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927
BL23	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BL34	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
C173	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
C383	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
CTA3	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
TR35	gewann	.	eac	eacan	begeat	heora	anra	gewelhwilc	symle	be	ðam	cræfte	þa	heom	god	lænde	.
ULK3	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~

S4

```
#NEXUS
[!Gaps in alignment coded as -]
[! ]
BEGIN taxa;
	DIMENSIONS NTAX=7;
	TAXLABELS
	[1]	BL23
	[2]	BL34
	[3]	C173
	[4]	C383
	[5]	CTA3
	[6]	TR35
	[7]	ULK3
;
END;
BEGIN characters;
	dimensions nchar=927;
	format
		datatype=standard
		missing=?
		respectcase SYMBOLS="0~9 a~z A~Z -";
	matrix
BL23
	1??????????????????????????????????????????????????????????????????????????????
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??????????????????????????????????????????????????????????????????????????????????
??????????????????????????????????0000000000000000-?0000000000000000000-
????????000000000000000000000-?00000000-0000000000-0-00000000000-?0000000000-
?00000000000-
??????????????????????????????????????????????????????????????????????????????????
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BL34	0000000000000000000000000000000000000000000000000000000000000-
00000000000000000000000000-000000000-
????????????????000000000000000000000000000000000000000000000000000-0000-
0000000000000000-00-000000000000000000000000-0000000-
00000000000000000000000000-000000000000000-0000000-000000000000000000-
0000000000000-0000000-0000000-00000000-0000000-000000000000000000001000-
?00000-0000000110000000000000000000001100-?00000000-000000000000-
000000001000000000000000000001000000000000000-
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C173 00000000000000000000000000000000000000000000000000000000-
0000000000000000000001000000-000000000-??????????????0010-
???????????000000000000000000000000000000000000-0000-00000000000000000-00-
000010000000000000000000-0000000-00000000000000000000000000-
0100000100000000-0100000-000000000000000000-0000000000000-0000000-0000000-0-
000000-0000000-00000000000000000000000-?00000-
00000001100000000000000000000001100-?00000000-000000000000-0000000-
10000000000000000000000000000000000000-
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C383 -?1010000-000000000000000000000000-?0000001100000-
00000000000000000000000000000010-0000-0010000000-00000000000000001-
??????????????????????000000000000000-00000000-0000-00100000000000000-00-
000010000000000000000000-00000000000000-
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CTA3 -?2010000-00000000000000000000000000000110000000000-
0000000100000000010100000011-01000-000000000-00000000010000011-
???????????000000000001000000000000-0000000000000000000-00010000000000000-00-
00-010000000-00000000000-0000000-000000000000010000000000000-
0100000000000000-0100000-0000000-????????????100000000000-0000000-?000000-0-
000000-0000000-00000000000000000-0000000-?00000-
00000001100000000000000000000011000000000000-?00000000000-0000-
???????????000000-
????????????????????????000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000-
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TR35 -?2010000-00000000000000000000000-?0000001100000-
00000000000000000000000000000010-0000-0010000000-00000000000000001-
???????????0000000-?000000000000000000-00000000-0000000100000000000000-00-
000010000000000000000000000000000000000001000000100000-?000000-
010000000000000-0100000-00000000100000000000-0100000000000-000000000000000-0-
00000000000000-0000100000000000-00000000000100-
000000000000000000000000000000011000001100000000000000-????0000110-??????00-
??
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??????????????????????000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000
ULK3 -?2010000-00000000000000000000000-?0000001100000-000000000-000-
00000000000000001000100000000000000010000000000000000-
???????????000000000000000000000000000-00000000-0000-002000000000-
0000000010-010000000000000000000-
000000000000000000000010000000000000001000002000000002000000-
????000000000000000011000000000000000000-000000000-010000-0-
????000000000000000100000000000-
?000000000000000000000000000000000101100000-000000-000000001000-0000000-
000000000000000000100000000000000000-
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;
END;

S5: Parsimony informative columns in the WSRG dataset

Col. No.	PI Columns - Description
1	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
3	At least two different textual readings each occurring more than once in the col.
5	At least two different textual readings each occurring more than once in the col.
10	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
34	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
42	At least two different textual readings each occurring more than once in the col.
43	At least two different textual readings each occurring more than once in the col.
49	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
59	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
82	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
84	PI number col. - col. added to indicate that one or more words that have been swapped round to the standard order.
87	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
90	PI number col. - col. added to indicate that one or more words that have been swapped round to the standard order.
97	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
114	At least two different textual readings each occurring more than once in the col.
115	At least two different textual readings each occurring more than once in the col.
156	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
173	At least two different textual readings each occurring more than once in the col.
194	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
224	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
238	At least two different textual readings each occurring more than once in the col.
298	At least two different textual readings each occurring more than once in the col.
361	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
376	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
384	At least two different textual readings each occurring more than once in the col.
385	At least two different textual readings each occurring more than once in the col.
411	First col. of a gap in at least two of the mss and an identical textual reading for at least two other mss.
443	At least two different textual readings each occurring more than once in the col.