

**Positions of Ornamental Letters within a Word in the Hengwrt and Ellesmere  
Manuscripts of Geoffrey Chaucer's *The Canterbury Tales***

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## 1 Introduction

We have been conducting a research project for the compilation of a comprehensive collation of the two manuscripts of *The Canterbury Tales*, the Hengwrt (Hg) and Ellesmere (El) Manuscripts, and their two edited texts, Blake (1980) which is faithfully reconstructed from Hg, and Benson (1987) which is based on El<sup>1)</sup>. Our project is still under way. Following the Hg order of the tales, we have so far completed a collation of the four texts of General Prologue, The Knight's Tale, The Miller's Tale, The Reeve's Tale, The Cook's Tale, The Wife of Bath's Prologue and Tale, The Friar's Tale, and The Summoner's Tale, including the links<sup>2)</sup>. Although our collation is limited to these tales and links, it has turned to be very illuminating in various ways and we have found some distinguishing features between the manuscripts and published editions<sup>3)</sup>. The difference in the frequencies of use of ornamental letters in the two MSs is one of such findings. In the two MSs, a total of 19 ornamental letters, that is, letters not used in the present English writing system, are used<sup>4)</sup>, except thorns and yoghs. They are used some 6,000 times in 120 thousand strong words of the two MSs. These ornamental letters are, however, not equally used in the MSs. We have demonstrated by statistics that, with a few exceptions, El is clearly much more "ornament heavy" than Hg as Table 1 below shows.

The present paper is an attempt further to explore the use of these ornamental letters in the two MSs. As the different frequencies of use of the superscript <sup>t</sup> in "w<sup>o</sup>" and "æ<sup>o</sup>" suggest, even the same ornamental letter can be

employed differently in the two MSs. Did the two manuscripts employ the same ornamental letter for different (sets of) words as in this case? Or, did they differentiate the use of ornamental letters in some other way(s) with respect to the words to be ornamented? In connection with this, the present paper seeks also to find whether the use of ornamental letters is associated with certain position(s) of a particular set of words.

Section 1 will deal with the first question of whether the two MSs use a given ornamental letter for different (sets of) words. The subsequent sections will address the second issue of whether the two MSs are different in the positions of the word where they use ornamental letters.

**Table 1 Distribution of Major Ornamental Letters in Hg and El**

( ) shows an ornamental letter symbol we employed for the transcription of MSs.

		Hg	El
<b>more frequent in El</b>	<b>d-tail ( ¶ )</b>	27 <sup>1)</sup>	125
	<b>h-bar ( Ū )</b>	78	730
	<b>high flourish ( ø )</b>	81	238
	<b>high hook ( ä )</b>	190	241
	<b>macron ( ~ )</b>	205	370
	<b>superscript t ( ° ) in w°</b>	45	137
	<b>superscript r ( å )</b>	36	53
	<b>Others</b>	36	50
<b>as frequent</b>	<b>mid tail ( ´ )</b>	1477	1459
	<b>p-bars ( ' , † )<sup>2)</sup></b>	75	83
<b>more frequent in Hg</b>	<b>superscript t ( ° ) in æ°</b>	464	324
	<b>low flourish ( ø )</b>	138	93
	<b>p-loop ( · )</b>	31	22

	total	2856	3925
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Notes:

- 1) Since the total numbers of the word tokens of the two MSs are roughly the same (some 60,000 word tokens), we give only the absolute number of the word tokens in which an ornamental letter appears.
- 2) Figures for “lower p-bar (‘)” and “upper p-bar (î)” are aggregated. The separate distributions are as follows.

	Hg	El
lower p-bar (‘)	66	69
upper p-bar (î)	9	14

## 1 Difference in Words Ornamented

As to the first question, the answer is straight. We first collected words in which an ornamental letter appears (to be called “ornamented word”) in either or both of the MSs. Next, for each ornamental letter, we created a table of the ornamented words with their number of occurrences in each of the two MSs<sup>5)</sup>. On the basis of this data, we calculated the correlation coefficient for each ornamental letters. Table 2 below gives the results obtained, with the number of words “adorned” with the ornamental letter in question. If the two MSs tend to employ a given ornamental letter for different words or set of words, the value of the correlation coefficient will be rather low. The correlation coefficients are, however, very high. It means that the two MSs put a given ornamental letter mostly on the same set of words.

**Table 2 Correlations of Ornamented Words for Major Ornamental Letters**

<b>Ornamental letter</b>	<b>number of words</b>	<b>correlation coefficient</b>
<b>d tail</b>	67	0.4679
<b>h bar</b>	197	0.3230
<b>high flourish</b>	41	0.9661
<b>high hook</b>	107	0.8740
<b>Macron</b>	187	0.7116
<b>mid tail</b>	753	0.6881
<b>low flourish</b>	88	0.7128

## **2 Method**

As we have shown that the MSs use a given ornamental letter for roughly the same set of words, our next task is to examine whether they use a given ornamental letter similarly or differently in some respects or other for roughly the same set of words, even though the frequencies of use may be different between them. One way of answering the question is to examine in what position(s) an ornamental letter is used. As our collation is performed in terms of words, there are two natural ways of comparing the positions (in a verse line) where ornamental letters are used. One is to examine where an ornamental letter is used within a word. And the other is to examine where in a line an ornamental letter is used. For this purpose, such intra-line positions as line-initial, line-final, pre-virgule, post-virgule and so on can be postulated.

As a first step, however, the present paper will examine where within a word an ornamental letter is used and examine the similar and different tendencies of the MSs. The examination of the second issue of positional distribution in a line will be our next task.

Before proceeding to the examination, it is better to make some analytical

preparations. First, ornamental letters can be divided into the two categories in terms of their functions.

(1) ornamental: those which do not give any additional information on the spelling of the word in which they are used,

(2) contractional: those which are used as some kind of abbreviation or contraction.

According to this criterion, the ornamental letters used either in Hg or El or in both, can be classified as follows.

**Table 3 Classification of Ornamental Letters**

ornamental	mid tail ( ´ ) h-bar (ú) d-tail ( ¶ ) l-bar ( Â ) loop ( ã ) superscript 9 ( ë )
contractional	macron ( ~ ) high hook ( ä ) high flourish ( ø ) low flourish ( ö ) <sup>1)</sup> p-bars ( ' ) ( î ) superscript r ( â ) p-loop ( · ) superscript i ( é ) superscript a ( ± ) 8 shaped s ( ê ) q-loop ( ï ) dagger ( ÿ )

1) The “low flourish” is sometimes used as an ornament as in “absolonö,” “gonö,” etc, but mainly used “contractionally” as in “conclusiouö”.

Next, in order to examine the positions within a word where ornamental letters are used, a word can be divided into the following three positions:

- word initial
- word medial
- word final.

In addition to these three, we also need a fourth category, “(separate) word,” because some ornamental letters are used as an abbreviation of a word.

### 3 Major Tendencies

The next table gives the list of all the ornamental letters, with their frequencies of use broken down by the positions within a word where they are used. In the table, the ornamental letters are arranged in the descending order of frequency for each of the categories.

As is clear from the table, all the ornamental letters are used at a fixed position within a word irrespective of their functions. Many are used exclusively at one fixed position, while others are used largely at one position. In this respect, no difference can be observed between the two MSs in question.

**Table 4 Positional Distribution of Major Ornamental Letters within a Word**

Category	Name	word initial	Word medial	word final	word	total
Ornamental	mid tail ( ´ )			2936		2936
	h-bar ( ú )	2	613	193		808
	d-tail ( ¶ )			152		152
	l-bar ( Æ )			10		10
	loop ( ã )			3		3
	superscript 9 ( 9̂ )			3		3
	Subtotal	2	613	3298		3913

Contractional	macron ( ~ )		174	401		575
	high hook ( ä )		412	19		431
	high flourish ( ø )			319		319
	low flourish ( ö )			231		231
	p-bars ( ´ ) ( ŕ )	132	15	2	9	158
	superscript r ( â )		23	66		89
	p-loop ( · )	53				53

	superscript i (é)		39			39
	superscript a (±)		17			17
	8 shaped s (ê)	6	2		1	9
	q-loop (ï)				3	3
	dagger (°)			2		2
	Subtotal	191	682	1040	13	1926

	<b>Total</b>	193	1295	4338	13	5839
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From Table 4, we obtain the following table, Table 5, which classifies ornamental letters according to the position(s) in which they are used.

**Table 5 Positions of Ornamental Letters within a Word**

	ornamental	contractual
exclusively word initial		p-loop (·)
exclusively word medial		superscript i (é), superscript a (±)
exclusively word final	mid tail (´), d-tail (¶) l-bar (Â), loop (ã) superscript 9 (ë)	high flourish (ø), low flourish (ö) dagger (°)
exclusively as a separate word		q-loop (ï)
largely word initial		p-bars (') (î), 8 shaped s (ê)
largely word medial	h-bar (ú)	high hook (ä)
largely word final		macron (˜), superscript r (â)

As there is no difference in the ornamental letters which are used exclusively at one fixed position within a word, in order to see the possible differences, we will focus upon those ornamental letters which appear at more than one position within a

line, though even they are used largely at a fixed position within a word. The next table shows the positional distribution of major ornamental letters which appear at more than one position in a word. The distribution figures are broken down both by the positions and by the MSs.

**Table 6 Positional Distribution of Major Ornamental Letters Broken Down by MSs**

	initial		medial		Final		word		total	
	Hg	El	Hg	El	Hg	El	Hg	El	Hg	El
h-bar (ú)		2	48	565	30	163			78	730
p-bar (') (î)	63	69	6	9	2	0	4	5	75	83
high hook (ä)			188	224	2	17			190	241
macron ( ~)			59	115	146	255			205	370
superscript r (â)			9	14	27	39			36	53

A cursory glance at the table suggests that there does not seem to be any significant difference between the two Mss in the positional use of ornamental letters. To confirm this, we performed the chi square test for each of the ornamental letters in Table 6. The results are given in the next table.

**Table 7 Results of the Chi Square Tests**

	χsquare	p value
h-bar (ú)	6.3656	0.0415
p-bar (') (î)	3.1422	0.3702
high hook (ä)	3.2159	0.0729
macron ( ~)	0.1262	0.7224



superscript r (â)	0.0524	0.8189
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It is clear from the table that there is no significant difference in the positions within a word where these letters are employed. The only exception is h-bar. When we set the significance level at 5%, the h-bar shows the statistically significant difference. As can be easily observed in Table 6, the h-bar is relatively more frequently used in the word-final position in Hg (38.5% in Hg and 22.3% in El), while it is used relatively more frequently in the word-medial position in El (77.4 % in El and 61.5% in Hg).

#### 4 Conclusion

El employs ornamental letters much more frequently than Hg. As far as the words for which ornamental letters are used, and the positions within these words where they are used are concerned, this is the only difference we have so far detected. Despite the relative frequency of use, the two MSs we examined display no significant difference in these respects.

First, a given ornamental letter is used for roughly the same set of words in both MSs.

Secondly, in both MSs, most of the ornamental letters are used at the same fixed position within a word, that is, only at one of word-initial, word-medial or word-final positions.

Thirdly, even for those ornamental letters which are used at more than one position within a word, there is no statistically significant difference in the positions in a word where they are used. The only exception is the h-bar. It is relatively more frequently used in the word-final position in Hg, while it is used relatively more frequently in the word-medial position in El.

Though we have so far processed only parts of the two MSs, we believe that our tentative conclusions above are valid ones. Since we have only dealt with verse

lines, the MSs may show some differences in prose lines of the Parson's tale and Melibee. The examination of the issue is our next task.

In the present paper, we focused on the words and the positions within a word in the examination of the difference of the use of ornamental letters. The MSs may be different in the use of ornamental letters in verse lines. This is another issue to be explored.

### Notes

- 1) For the method of collation we adopted, see Jimura, Nakao, and Matsuo (1995), Jimura, Nakao, and Matsuo (1999), Jimura, Nakao, and Matsuo (2002), Nakao, Jimura, and Matsuo (2004).
- 2) For the sample of the collation, see Appendix 1.
- 3) They were partly reported under the title "A Project for a Comprehensive Collation of the Two Manuscripts (Hengwrt and Ellesmere) and the Two Editions (Blake (1980) and Benson (1987)) of *The Canterbury Tales*" at the 16th New Chaucer Society Congress held from 18 – 22, July, at Swansea University, UK
- 4) A complete list of ornamental letters is given in Appendix 2 with their names and manuscript images.
- 5) For each ornamental letter, the data matrix is like the following table which shows a part of the data for "high hook."

ornamented word	occurrence in Hg	occurrence in El
aduäs itee	2	4
appäntice	1	1
beuäe	1	1
catäwawed	0	1
cauntäbury	2	2
cätayn	3	3
cätein	2	1
cäteinly	3	5
cätes	8	5
cäteyn	10	5

It is of course desirable to give a list of all the words with an ornamental letter in

the above form. But it will need too much space since there are some 6,000 words.

### Acknowledgements

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Appendix 1 Sample Output of the Collation of the Four Texts,











Hengwrt and Ellesmere MSs, Blake (1980) Benson (1987):


The Beginning of the General Prologue

*HG:2r GP 0000	{H}ere bygynneth the Book <sup>7</sup> of the tales of Caunt <sup>7</sup> bury
*EL:GP 0000	<missing>
*BL:GP 0000	Here bygynneth the book of the tales of Caunterbury .
*BN:GP 0000	Here bygynneth the Book of the Tales of Caunterbury .
HG:2r GP 0001	{6W}han that Auery <sup>ff</sup> w <sup>t</sup> his shoures soote
EL:1r GP 0001	{6W}Han Apriff with hise
BL:GP 0001	Whan Aueryll with
BN:GP 0001	Whan Aprill with
HG:2r GP 0002	The droghte of March / hath pced to the roote #
EL:1r GP 0002	perced
BL:GP 0002	March # perced
BN:GP 0002	March # perced ,
HG:2r GP 0003	And bathed euery veyne # in swich lycour
EL:1r GP 0003	/ licour
BL:GP 0003	
BN:GP 0003	every licour
HG:2r GP 0004	Of which v <sup>7</sup> tu # engendred is the flour #
EL:1r GP 0004	/
BL:GP 0004	vertu ,
BN:GP 0004	vertu ;
HG:2r GP 0005	Whan zephirus eek <sup>7</sup> # w <sup>t</sup> his sweete breeth
EL:1r GP 0005	Zephirus eek / breeth
BL:GP 0005	Zephirus eek with
BN:GP 0005	Zephirus eek with
HG:2r GP 0006	Inspired hath # in euery holt <sup>7</sup> and heeth
EL:1r GP 0006	/ heeth
BL:GP 0006	holt
BN:GP 0006	every holt
HG:2r GP 0007	The tendre croppes / and the yonge sonne
EL:1r GP 0007	
BL:GP 0007	,
BN:GP 0007	,
HG:2r GP 0008	Hath in the Ram / his half cours yronne #
EL:1r GP 0008	
BL:GP 0008	ram # half-cours ,
BN:GP 0008	# ,
HG:2r GP 0009	And sm <sup>7</sup> a <sup>7</sup> le foweles / maken melodye #
EL:1r GP 0009	smale
BL:GP 0009	smale #
BN:GP 0009	smale # ,

Appendix 2: Ornamental Letters Used in Hg and/or El

name	manuscript image	transcription	sample
d-tail		¶	ger lan ¶
h-bar		ú	flessú
upper p-bar		↑	↑aventure
lower p-bar		'	'ilous
p-loop		,	,ables
superscript a		±	g±ce
superscript i		é	péuete
superscript r		å	honoåed

superscript t		◦	w◦
superscript 9		ë	Cadmë
high flourish		ø	hirø
low flourish		ö	Pal amouö
high hook		ä	euäe
macron		~	Londou~
mid tail		´	herberwyng ´
loop		ā	strookā
l-bar		Â	AueryÂ
q-loop		Ī	Ī the frere

dagger		<sup>3</sup>	Essex <sup>3</sup>
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Note: Thorns and yoghs are excluded, and the list is an incomplete and preliminary one because we have not processed many tales and links. Punctus elevatus (>) and wedge (²) are also deleted from the list because they are used as a punctuation.