

## PRELIMINARY THOUGHTS ON NOMENCLATURE FOR TEACHERS OF HANDWRITING

### ABSTRACT

This paper draws attention to the need for a useful nomenclature for handwriting and suggests sets of terms for use by those concerned with the teaching of handwriting and research into it. Reference is made to papers on nomenclature in the related field of printing types and to the recommendations of a study group of the Working Party on Typographic Teaching in Britain. Terms are proposed for categories of letters, the main parts of letters, descriptions of orientation, variant forms of letters, the real or notional lines associated with handwriting and ways of referring to heights. These terms are intended specifically for use by teachers and other specialists in handwriting. (It is accepted that good teachers will develop their own terms when working with young children.) The recommended terms are set out in a series of tables along with terms commonly used by different groups of specialists: teachers, writers of handwriting books, those who write about paleography and letterforms, and specialists in printing and computing. The terms used by teachers were gleaned from a small, uncontrolled survey. This revealed a reluctance or inability of many teachers to describe parts of letterforms and features associated with them and considerable variation in the use of terms. This survey suggested that a larger-scale project of a similar kind should be undertaken.

*"The absence of an accepted nomenclature was a stumbling-block for most (writing) masters. If technical terms had existed, a great deal of long-winded and obscure explanation might have been avoided."*<sup>1</sup>

Many people find discussion about nomenclature irrelevant to their needs; others believe that it is essential to know what we mean by the terms we use before anything can be discussed with precision. We tend to belong to the second category, though we have to admit that we have managed to talk about handwriting for a good many years without arriving at a clear set of terms, even for ourselves. The reasons for addressing the question of handwriting nomenclature now are twofold: first, many teachers have told us that they do not know what they should call the parts of the letters they need to describe; secondly, we have become aware that confusion arises because those who write about the teaching of handwriting use terms in different ways.

In this paper we merely draw attention to the need to sort out terminological confusions and provide tentative suggestions for handwriting nomenclature. It is not our intention to discuss subtle distinctions in handwriting that distinguish one style of handwriting from another or to discuss approaches to nomenclature in other fields of study that have to do with letterforms. We shall refer to some of the latter in passing, but our overriding concern is to provide those involved with the teaching of writing, or research into it, with an initial framework of terms that might be useful to them. The proposals we make, though the subject of considerable thought and discussion, should be regarded as provisional and are likely to be revised in response to feedback; they are presented here in the hope that they will go some way toward reducing misunderstandings in the future and make the job of teaching handwriting a little easier.

Nomenclature for the teaching of handwriting has been complicated by two factors. First, most of the terms that have been coined for letterforms in general have come from other fields of study, principally from printing and paleography. Secondly, most of those concerned with the teaching of handwriting have had to keep in mind not only their own specialist needs, but

also the need to find words that make sense to the children they teach. For these reasons, the terms presently used to describe handwriting are varied and often confusing. In writing this paper, we decided to put emphasis on simplifying issues even though this may have been at the expense of differentiating nuances of form, such as the differences between the lower parts of the written forms of “t” and “i.”

The need for work of this kind to be undertaken has been evident for many years. From the late 1960s until 1980, a surviving study group of the short-lived Working Party on Typographic Teaching met occasionally at the Department of Typography & Graphic Communication at Reading University to discuss matters to do with the teaching of writing. This interest in handwriting stemmed from a belief that many issues relating to graphic language cross technological boundaries and that typography should not be divorced from handwriting. The Working Party on Typographic Teaching as a whole was concerned with the teaching of those who might become professional typographers: the sub-group referred to above had the teaching of handwriting as its specific focus, though it attempted to involve a broad range of specialists in order to provide a bridge between the educational world and practitioners. The last two meetings of the study group of the Working Party on Typographic Teaching took place in 1979 and 1980 and were specifically devoted to questions of terminology for letterforms. The group had in view the need for a nomenclature that would find favor with specialists representing different areas of interest in letterforms, such as paleographers, epigraphers, printers, typographers, calligraphers, teachers of writing and computer scientists. Though friendly, the discussions were lively and, on occasion, heated. Understandably, very few clear recommendations emerged; those that did are referred to in the tables below.<sup>2</sup>

The teaching of handwriting excites more interest now than it did ten or twenty years ago, and it is probably true to say that the issues discussed by the study group are more acute now than they were then. Issues of nomenclature have become more press-





ing in recent years, partly because specialists in other disciplines have begun to apply their own particular skills and methodologies to the teaching of writing and partly because recent changes in the production of "machine writing" have brought hitherto specialist terms, such as leading and serif, into everyday language, including that of teachers.

A common nomenclature for handwriting is certainly desirable so that we know what we and other people mean by such terms as bowl, stem, stroke, ascender and tail; so too is consistent use of these terms. Some problems have simply to do with naming; these are the easiest to resolve. For example, the collective set of letters "ABCDE," etc., is relatively easily recognized as being different from "abcde," etc.: it is simply a matter of whether we call the first set capitals, capital letters, uppercase, majuscules, big letters or block letters, and the second set lowercase, minuscules or small letters. Other problems are more difficult because they have their roots in differences of interpretation, such as whether a change of stroke direction is abrupt enough to be considered a "broken stroke," or is sufficiently homogeneous to remain a single stroke (defined by one leading paleographer as a single trace of the pen).<sup>3</sup> We have avoided most such problems in this paper.

There is also the question of the kind of nomenclature to use. Gaskell provides a very useful description of the three principal categories of terms, which he describes as calligraphic, anthropomorphic and geometric.<sup>4</sup> Traditionally, many of the terms we use are metaphoric and frequently anthropomorphic (stem, arm, leg, tail). Other terms in common use have to do with the means of production (stroke, thick, loop), or with the relationship of the finished trace to some geometrical idea (upright, horizontal, diagonal). Examples from each of these categories are so embedded in the language we use to describe letters that it would be pointless to try to use terms from any one of these categories exclusively. It seems likely, however, that professionals will find calligraphic and geometric terms more useful than anthropomorphic ones, and that those concerned with teaching children

to write will turn naturally to the use of metaphors with human or animal bodies (indeed, it is possible that this explains the very long tradition in the use of such terms). The terms we propose have been chosen with the needs of teachers in mind, but we accept that different terms will probably need to be used when talking to young children and that good teachers should use whatever terms prove to be most effective in a given situation.

The most coherent and fully developed approaches to nomenclature for letterforms have been devised with printing in mind. However, long before this, as Gaskell has pointed out, the authors of the earliest writing manuals found it necessary to refer to individual parts of letters and “found or invented terms in French, German, Italian and Latin for stroke, serif, thick, thin, and so on,”<sup>5</sup> and at least one sixteenth-century writing master, Gerardus Mercator, attempted to define some of the terms he used.<sup>6</sup> The first published nomenclature relating to printed letters appeared in Moxon’s *Mechanick Exercises* of 1683. This set the pattern for what needed to be described for printed letters, but in the twentieth century, much more comprehensive attempts have been made to provide a coherent nomenclature for the parts and features of printed letters. The most significant of these have been Joseph Thorp’s two contributions in the *Monotype Recorder* in the early 1930s: “Towards a Nomenclature for Letter Forms,” and “Experimental Application of a Nomenclature for Letterforms of Roman Type,”<sup>7</sup> and Philip Gaskell’s “A Nonmenclature for the Letterforms of Roman Type,” in this journal.<sup>8</sup> There is also a British Standard, “Specification for Typeface Nomenclature,”<sup>9</sup> which built on common practice. However, these publications deal only with the parts of letters and certain other features of them, and they deal only with roman types (that is, not gothic or non-latin ones). But above all, they deal only with types.

Problems of nomenclature for writing, and particularly for the teaching of writing, are very different, largely because there is the extra issue of process (how the marks are made). A nomen-





clature for writing needs to embrace all, or at least most, of the visible features of letterforms; but ideally, it also has to take into account the means of achieving them through sequences of marks and the real or notional guidelines associated with letterforms, such as horizontal lines. In addition, any complete nomenclature for writing has to address the question of joined letters and degrees of cursiveness. Nomenclature for writing is therefore a minefield, and few attempts have been made to come up with a set of proposals. This paper should be seen as no more than a means of opening up the subject for wider discussion. We do not pretend that it is exhaustive in scope or that it should be regarded as definitive. Apart from anything else, neither of us is concerned with the teaching of writing on a day-to-day basis, which must mean that we are unaware of some of the problems faced by teachers.

The information set out below in the form of tables draws primarily on the main published sources known to us. To our knowledge, nothing has been published in relation to either paleography or the teaching of writing that can compare in thoroughness with the publications on nomenclature for typefaces referred to above. Paleographers may have felt that the differences in written letterforms across cultures and periods have been so great, and the variations in the forms of letters and styles of writing so continuous, as to defy any all-embracing nomenclature; teachers of writing have, by tradition, been more concerned with practicalities than with what might seem to be theorizing for its own sake. Nevertheless, we have scoured publications on paleography, printing and writing to discover what terms have been used to describe parts of letterforms and features of writing. We have found particularly useful short notes of paleographical terms in Malcolm Parkes's *English Cursive Book Hands* (Oxford: Clarendon Press, 1969) and Anthony Petiti's *English Literary Hands from Chaucer to Dryden* (London: Edward Arnold, 1977) and have made good use in a general way of the writings of Harry Carter, Alfred Fairbank, Christopher Jarman, Tom Gourdie, Nicolette Gray, Edward Johnston, James Mosley, Gerrit Noordzij, A. S. Osley, Marion Richardson, Rosemary Sassoon and Peter Smith.

In addition, a small survey was undertaken with some British schoolteachers in order to establish what terms they use to describe the parts and other features of letters. The sample was not controlled. About fifty questionnaires were distributed on a personal basis to teacher friends and teacher colleagues of friends. The questionnaires consisted of sheets showing groups of letters, parts of letters, guidelines for producing letters, and variant forms of letters. The teachers were asked to record in writing what they called the things they were shown. Only eighteen questionnaires were completed, and feedback suggests that many teachers were reluctant to participate because they had no terms to describe what they were shown. The teachers were asked to record what terms they used when discussing handwriting with their colleagues, though some responded by giving, in addition, the terms they used when talking to children. The latter, which included such terms as cat letters and giraffe letters, have not been included in the published tables.

This small survey was undertaken merely to provide some evidence for the kinds of terms being used by teachers. It does not follow, of course, that the terms most widely used are the best ones, but our preliminary findings proved sufficiently revealing that we thought it would be worthwhile to undertake a better controlled and larger-scale project of a similar kind. Our initial findings indicate that some teachers make a distinction between the terms they use when talking to, or writing for, one another and those they use when talking to young children; in the second survey, we hope to raise this as a specific issue. The survey also revealed that teachers found naming things very difficult: a frequent response on the questionnaires was, "I don't have terms for this/these"; and some teachers indicated that they preferred to show children how to make a particular letter rather than use terms to describe it or its components.

Ideally, this paper should have included a discussion of nomenclature in relation to the writing of other scripts taught in Western schools (such as Arabic, Bengali, Gujarati). We believe that some of the terms proposed are applicable to such scripts, and there are obvious advantages in using terms that can have wide applicability. It would also have been desirable to include a con-





cordance of the terms used in the major European languages to describe the same things. Since the forms of handwriting used in most parts of the world that use the Latin alphabet seem to be losing their national characteristics, it would probably be relatively easy to produce such a concordance in the second stage of this exercise. We shall wait to see what kind of interest this proposed nomenclature generates.

#### **A NOTE ON THE TABLES**

The first column of each table lists all the terms shown in the other columns; within this list, we have indicated in bold type the terms we think are most appropriate for teachers to use when discussing handwriting with their colleagues. (Good teachers will use whatever terminology is appropriate when talking with children.) An asterisk after a term in the first column indicates the one preferred by the study group of the Working Party on Typographic Teaching in 1979 and 1980.

It was originally intended to give exact sources for all the terms shown; on reflection, it was decided that this would complicate the tables unnecessarily. The authors whose works have been consulted are given on page 193.

TABLE 1 CATEGORIES OF LETTERS

This table shows particular groups of letters that are likely to be referred to in the teaching of handwriting.

	synopsis of terms and recommendations	teachers	handwriting manuals	paleography & lettering	printing & computing
ABCDEFGHI	big letters block capitals capital letters* capitals caps majuscules uppercase	big letters block capitals capital letters	capital letters capitals	capitals majuscules	capitals caps majuscules uppercase
abcdefgh	little letters lowercase lowercase letters minuscule alphabet minuscules ordinary letters small letters*	little letters ordinary letters small letters	lowercase letters minuscule alphabet small letters	minuscules small letters	lowercase minuscules
fgjppqy	descenders descending letters* hanging down letters infralinear letters letters that hang under the line letters with descenders letters with descending strokes letters with tails letters with tails hanging below the line small letters which go below the line	hanging down letters letters that hang under the line letters with tails letters with tails hanging below the line small letters which go below the line	descenders letters with descenders	descenders infralinear letters letters with descending strokes	descenders descending letters



	synopsis of terms and recommendations	teachers	handwriting manuals	paleography & lettering	printing & computing
<i>bdfhkl</i>	ascenders ascending letters* letters with ascenders letters with ascending strokes letters with sticks small letters which are tall supralinear letters tall letters tall "ordinary" letters	letters with sticks small letters which are tall tall letters tall "ordinary" letters	ascenders letters with ascenders tall letters	ascenders letters with ascending strokes supralinear letters	ascenders ascending letters
12345	digits figures numbers numerals	digits numbers numerals	numerals		figures numbers numerals
<i>and</i>	letters without hooks non-cursive printing print script static print	letters without hooks printing	print script static script		
<i>and</i>	flowing separate letters letters ready for joining up letters with exit strokes letters with flicks letters with hooks letters with kicks letters with links	letters ready for joining up letters with flicks letters with hooks letters with kicks letters with links	flowing separate letters		
<i>and</i>	cursive joined up letters joined writing joining up script	joined up letters joined writing joining up cursive	cursive joined writing	cursive running	script

TABLE 2 DESCRIPTION OF ORIENTATION

	<b>synopsis of terms and recommendations</b>	<b>teachers</b>	<b>handwriting manuals</b>	<b>paleography &amp; lettering</b>	<b>printing &amp; computing</b>
	perpendicular straight down upright* <b>vertical</b> vertical stroke	straight down upright (line)	vertical stroke	perpendicular vertical	
/ \	<b>diagonal</b> diagonal stroke oblique* slope	diagonal (line) oblique slope	diagonal stroke	oblique	
—	across cross stroke <b>horizontal*</b>	across cross stroke horizontal (line)	horizontal stroke	horizontal	

TABLE 3 PARTS OF LETTERS

The parts of letters to be named in this table are shown by a solid line.

	<b>synopsis of terms and recommendations</b>	<b>teachers</b>	<b>handwriting manuals</b>	<b>paleography &amp; lettering</b>	<b>printing &amp; computing</b>
<i>f g j t y</i>	flick hook <b>tail</b> terminal	flick hook tail	tail	tail	tail
<i>b d g h k q y</i>	back(s)	down part(s)	back stroke(s)	back(s)	main stroke(s)
<i>B D E F K M</i>	back stroke(s)	down stroke(s)	stem(s)	main stroke(s)	stem(s)
<i>N P R U</i>	down part(s)	long bit(s)		stem(s)	
	down stroke(s)	stick(s)			
	long bit(s)				
	main stroke(s)				
	<b>stem(s)</b>				
	stick(s)				



	<b>synopsis of terms and recommendations</b>	<b>teachers</b>	<b>handwriting manuals</b>	<b>paleography &amp; lettering</b>	<b>printing &amp; computing</b>
<i>a b c d e</i> <i>g k o p q</i> B D O P R Q	<p>Many people fail to make the distinction between the written mark, the space enclosed by it, and the two combined. Three different terms are recommended to make distinctions.</p> <p><b>bow*</b> (the written mark)</p> <p><b>bowl*</b> (the written mark with the space enclosed by it)</p> <p>circle</p> <p>counter</p> <p>eye</p> <p>hole</p> <p>inside shape (the space enclosed by a bowl)</p> <p>internal space</p> <p>interior shape*</p> <p>lobe</p> <p>loop</p> <p>round</p>	<p>bowl</p> <p>circle</p> <p>hole</p> <p>round</p>	<p>bow</p>	<p>bowl</p> <p>eye</p> <p>lobe</p>	<p>bowl</p> <p>counter</p> <p>inside shape</p> <p>internal space</p> <p>loop</p>
<i>v w x y z</i> A K M N R	<p><b>diagonal(s)</b></p> <p>leg (in the case of R and K)</p> <p>oblique stroke(s)</p>		<p>diagonal(s)</p>	<p>oblique stroke(s)</p>	<p>diagonal(s)</p> <p>leg (in the case of R and K)</p>
<i>c e s</i> C G S Q W X Y Z	<p><b>open curve(s)</b> (upper/lower)</p> <p>arm(s)</p> <p>upper/lower part(s)</p>				<p>arm(s)</p> <p>upper/lower part(s)</p>
<i>I J</i>	<p><b>serif(s)</b></p>		<p>serif(s)</p>	<p>serif(s)</p>	<p>serif(s)</p>
<i>J Q</i>	<p><b>tail</b></p>			<p>tail</p>	<p>tail</p>

	<b>synopsis of terms and recommendations</b>	<b>teachers</b>	<b>handwriting manuals</b>	<b>paleography &amp; lettering</b>	<b>printing &amp; computing</b>
<i>tf</i>	The horizontals in these letters are of different kinds. The term "cross stroke" is reserved for t, f, A, H and T; it might also be applied to the horizontal stroke of a G.	cross cross stroke	cross bar	head stroke	cross stroke
AHT	arm(s) bar(s) cross cross bar <b>cross stroke</b>		cross bar	cross bar cross stroke head stroke (if at top)	bar
EFLZ	head stroke <b>horizontal(s)</b> limb(s)			bar(s) limb(s) arm(s)	arm(s)
<i>a d hi</i> <i>l m r u</i>	curly tail curved flick exit exit curve <b>exit stroke</b> flick foot hook kick link little curved upstroke little diagonal tail serif	curly tail flick hook kick link	curved flick exit exit curve exit stroke hook little curved upstroke serif	foot hook little diagonal tail	
<i>and</i>	join joining <b>joining stroke</b> joining up links ligature link	join joining joining up links	join joining stroke ligature	link	








	<b>synopsis of terms and recommendations</b>	<b>teachers</b>	<b>handwriting manuals</b>	<b>paleography &amp; lettering</b>	<b>printing &amp; computing</b>
	flick pointed tail small flick at the end tail tick	flick pointed tail tail tick	small flick at the end tail		
	arch(es) bridge(s) limb(s)	arch(es) bridge(s)	arch(es) bridge(s)	limb(s)	
	arch inverted arch swing upside down arch		arch inverted arch swing		

TABLE 4 LINES AND HEIGHTS

The lines (notional or real) referred to in this table are represented by a solid line. The heights are represented by arrows.

	<b>synopsis of terms and recommendations</b>	<b>teachers</b>	<b>handwriting manuals</b>	<b>paleography &amp; lettering</b>	<b>printing &amp; computing</b>
	base line* foot line line of writing the line writing line	the line	base line	line of writing writing line	base line foot line
	capital-letter line* capital line cap line just under twice the x length		just under twice the x length		capital line cap line

	synopsis of terms and recommendations	teachers	handwriting manuals	paleography & lettering	printing & computing
	head line mean line minim line small-letter line upper line x line*			upper line minim line	head line mean line x line
	bottom line descender line*				bottom line descender line
	ascender line* top line				top line
	capital height cap height capital-letter height space for capitals	space for capitals			capital height cap height
	height of the small letters minim height small-letter height space for ordinary letters space for small letters x height*	space for small letters	height of the small letters x height	minim height	x height

TABLE 5 SOME VARIANT FORMS

	synopsis of terms and recommendations	teachers	handwriting manuals	paleography & lettering	printing & computing
	single-bowled 'g'				
	double-bowled 'g' double-lobed 'g' double-looped 'g' twin-bowled 'g' two-compartment 'g'			double-lobed twin-bowled two-compartment	double-looped

	synopsis of terms and recommendations	teachers	handwriting manuals	paleography & lettering	printing & computing
<i>a</i>	single-story 'a'				single-story
<i>ā</i>	double-story 'a' two-story 'a'				double-story two-story
12345	lining figures lining numerals modern figures ranging figures				lining figures modern figures ranging figures
123456	non-lining figures non-lining numerals non-ranging figures old style figures				non-lining figures non-ranging figures old style figures
<i>k</i>	straight 'k'				
<i>k̄</i>	looped 'k' kicking 'k'	kicking 'k'			looped 'k'
<i>z</i>	'z' without tail				
<i>z̄</i>	'z' with tail				
<i>f</i>	'f' without tail				
<i>f̄</i>	'f' with tail				
<i>γ</i>	angled 'y'				
<i>γ̄</i>	arched 'y'				
<i>u</i>	'u' with stem				
<i>ū</i>	'u' without stem				
<i>R</i>	'R' with a diagonal leg				
<i>R̄</i>	'R' with a curved leg				
<i>Q</i>	'Q' with a diagonal tail				
<i>Q̄</i>	'Q' with a horizontal tail				
<i>Q̄̄</i>	'Q' with a curved tail				

## ENDNOTES

<sup>1</sup> Osley, A. S. 1980. *Scribes and Sources: Handbook of the Chancery Hand in the Sixteenth Century*. London: Faber & Faber.

<sup>2</sup> We should like to thank all those who contributed to these discussions and to acknowledge ideas which may have been expressed by individuals and taken up here without our realizing it. Among those attending these meetings were: Stuart Barrie, the late Hella Basu, Ralph Beyer, Nicholas Biddulph, Jennifer Booth, Gunnlauger Briem, Kenneth Brooks, John Burgess, Peter Burnhill, Ann Camp, Madeleine Dinkel, Sheila Donovan, Miriam Goluchoy, David Graham, Nicolette Gray, Sid Harley, Michael Harvey, the late Herman Hecht, the late Ernest Hoch, Robin Kinross, Alan May, James Mosley, Terry O'Donnell, Bridie Raban, Gillian Riley, Pat Russell, John Salisbury, Rosemary Sassoon, Roger Smith, Richard Southall, Paul Stiff, Miriam Stribley, Bernard Thurlow, Michael Twyman, Susan Walker, George Webb, Frances Woolcombe, Brain Yates.

<sup>3</sup> Parkes, M. B. 1969. *English Cursive Book Hands*. Oxford: Clarendon Press, xxvi.

<sup>4</sup> Gaskell, P. 1976. "A Nomenclature for the Letterforms of Roman Type." *Visible Language* 10, no. 1: 41-51.

<sup>5</sup> Gaskell. "Nomenclature," 41.

<sup>6</sup> See Osley, A. S. 1980. *Scribes and Sources*. London: Faber & Faber, 189.

<sup>7</sup> *Monotype Recorder*. 1931. Vol. 30, no. 240:9-19; and 1933, New Series no. 1:15-19.

<sup>8</sup> Gaskell. "Nomenclature," 41-51.

<sup>9</sup> BS 2961, 1958, revised 1967.

**B I O G R A P H Y**

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