

*Abstract*

Due to the greatly increased demand for clear, rapid handwriting by secretaries in the service of government, church, and commerce, Renaissance writing masters found themselves playing an important role as instructors. In producing their manuals for students, the writing masters utilized the recent technical developments in printing and based their teaching on the newly developed script of scholars and diplomats and churchmen, the *cancellaresca corsiva*. The teaching of seven Renaissance writing masters is assembled to examine separately what the masters had to say about basic elements of writing—slope, pen angle, letter proportion, length of ascenders, spacing, and joining. Having thus identified the fundamental canons that regulated the classic chancery hand of the Renaissance, the author applies them to modern systems of italic handwriting and concludes that the models of Alfred Fairbank as seen in his *Handwriting Manual* and the Beacon Writing Series come closest to the spirit and teaching of the early writing masters. He supports the use of the edged pen as a teaching aid for young children.

A more accurate title would be “Some Canons of Some Renaissance Handwriting.” To treat the subject in its entirety would require several articles. This article therefore concentrates on a few fundamental aspects which are well documented and also relevant to handwriting today. That handwriting remains an essential ingredient of modern education is taken as a proposition which it would be otiose to debate.

The medieval writing master worked in a limited sphere. The great mass of the population was illiterate and expected to be so. Handwriting and calligraphy (the terms were hardly distinguishable at that time) flourished especially in the monasteries. It was also taught in the grammar schools. Perhaps it is not surprising that no actual models, and only scattered texts, survive. The latter are generally crude bits of Latin verse, often of a mnemonic character. The most substantial text of this kind, the *Forma Scribendi* by Hugo Spechtshart, consists of less than two hundred lines of

Latin verse and would only be useful if one had a teacher. No doubt certain basic rules were handed down traditionally, but the whole business was un-coordinated and unsystematic. The scene was transformed in the fifteenth and sixteenth centuries, particularly by the increase in demand for handwriting, the invention of printing, and a new script.

*Increased demand.* The Renaissance was the time in which the European community of the Middle Ages yielded to the forces of nationalism: the apparatus of the modern state began to take shape. The authority of the Church came into question, while geographical exploration widened the horizons of commerce and pushed forward the frontiers of knowledge. An explosion of activity—political, ecclesiastical, commercial, and diplomatic—took place. Machinery had to be created to meet the new demands. Historians concur that it was during the sixteenth century that bureaucracy really started to flourish. New offices were created and had to be manned.

Consequently a need arose for secretaries who could handle voluminous correspondence, who could write quickly and clearly from dictation, and who could draft documents at short notice. Pedro Madariaga in his *Libro Subtilissimo* of 1565 developed at length the thesis that handwriting was vital to Spanish society and was an appropriate, even essential, accomplishment for the hidalgo, who at that time—like many since—regarded it with contempt or indifference. All these secretaries had to be trained. The man who would play a leading role in this was the writing master. His instruction would have to be practical, concentrating on those scripts which were most required, and composed with full explanations to enable those who so wished to teach themselves.

*Invention of printing.* This speaks for itself. With the aid of printing the writing master could now reach the wider public which was clamoring for his guidance. It was now worth his while to produce organized material and to publish rules that had hitherto been regarded as secrets of the art. There was, however, a stumbling-block (if “block” be the right word). It was not until about 1520 that engravers mastered the technique of engraving cursive letters on wooden blocks; until this difficulty was overcome, the writing master could not reproduce his models by printing.

Although printing facilitated the teaching and diffusion of good handwriting, the traffic was two-way. The printed book adopted

conventions based on the written manuscript, and in 1500 Aldus Manutius commissioned for his Aldine classics a new typeface modeled on the handwriting of contemporary scholars.

Another consequence of the invention of printing was that, for the first time, one master could study another man's methods at leisure. For some reason those who fancy themselves as having a special insight into handwriting—from that time until today—usually develop, as by divine afflatus, rigid, idiosyncratic viewpoints. There is no lack of controversy and abusive language in sixteenth-century writing books.

*A new script.* At the end of the fourteenth century and the beginning of the fifteenth, scholars such as Petrarch, Coluccio Salutati, Niccolò Niccoli, and Poggio Bracciolini were collecting and transcribing newly-discovered texts of the classics. They were attracted by the clear, upright Carolingian script which they found in the manuscripts of the eleventh and twelfth centuries, and some—especially Poggio and Niccoli—employed it as a pattern for copying their texts. Making separate, upright roman letters involves frequent pen-lifts. It is not the most rapid way of writing. Under pressure of speed, copyists tended to join letters together when convenient, often by a diagonal join springing from the foot of the previous letter (though some horizontal joins at the tops of letters were also pressed into service), to write with a slight slope to the right, and to impart a distinctive oval shape to the circular parts of letters. The letter *o*, for example, now resembled an egg rather than an orange. The results was a brand-new cursive script, the *cancellaresca corsiva*, which became the typical hand of the scholar, the diplomat, the ecclesiastical dignitary, and their secretaries. It was above all used when the matter to be written was in Latin.<sup>1</sup> The new “chancery” script had the advantage of being compact, fast, and legible. The time had come to analyze and teach it.

By examining some of the canons which were evolved for writing the chancery script, we shall try to pull together systematically the teaching of seven writing masters—five Italians, one Netherlander, and one Spaniard. The authors and their books are:

*Theorica et Pratica* (Venice, 1514) by Sigismondo Fanti (architect, astrologer, mathematician, and writing master). This was the first Italian printed writing book. It contains no models of script

because the author could not find an engraver capable of reproducing cursive script on wood blocks.

*Lo presente libro* (Venice, 1524, longer version) by Giovanni-antonio Tagliente, a public servant in the Venetian Republic (Figure 1).

*La Operina* (Rome, date uncertain) by Ludovico Vicentino degli Arrighi, Vatican scriptor and printer. This work was composed in 1522 but was probably not published until 1524 (Figure 2).<sup>2</sup>

*Libro Nuovo d'imparare a scrivere* (Rome, 1540) by Giovambattista Palatino, notary, poetaster, man of letters, and writing master (Figure 3).

*Literarum Latinarum . . . scribendi ratio* (Louvain, 1540) by Gerardus Mercator, engraver, scientific instrument and globe maker, cartographer (Mercator's projection), and calligrapher (Figure 4).

*Recopilación Subtilissima . . .* (Saragossa, 1548) by Juan de Yciar, calligrapher and writing master.

*Opera . . . nella quale si insegna a scrivere* (Venice, about 1565) by Don Augustino da Siena, priest and writing master (Figure 5).

We shall now examine what these authorities had to say about such basic elements as slope, pen angle, letter proportion, length of ascenders, spacing, etc. Although each topic is treated separately, they are all interrelated parts of a single system. If one is changed or neglected, the whole style of the script is affected.

### *Slope*

Slope is essential to cursive handwriting. When we write rapidly, it tends to increase. Unless, however, it is curbed, the letters will sprawl and break down. Illegibility follows. If we have learned to write from a model that has only a slight, though distinct, slope, we stand a better chance of remaining legible when we write fast. This fundamental point was instinctively grasped by the early writing masters, though they had some difficulty in describing it precisely, possibly because the concept is best expressed in mathematical terms. Thus Fanti says: “You must see that the long downward lines and the bodies [of the letters] slope a little to the right” and Tagliente refers to “a little slope.” Vicentino is more roundabout: “See that the letters slope as follows. . . .” He then writes the tag *Virtus omnibus rebus anteit profecto* with an exaggerated

**E** gliè manifesto Egregio lettore, che le lettere Cancellareſche ſono de uarie ſorti, ſi come poi uederà nelle ſcritte tabelle, le quali to ſcritto con meſura & arte, Et per ſatisfactione de' cui apitiſe una ſorte, et cui maſtra, Io to ſcritto queſta altra uariatione de lettere la qual uolendo imparare offerua la regola del ſottoſcritto Alphabeto :  
 A a. b. c. d. e. e. ff. g. h. i. k. l. m. n. o. p. p.  
 q. q. r. s. s. t. u. x. y. z. & .

Le lettere cancellareſche ſopranominate ſe fanno tonde longe large tratizzate & non tratizzate Et per che io to ſcritto queſta uariatione de lettera la qual imparerai ſecundo li noſtri precetti et opere

A a a b. c. d. e. e. f. g. h. i. k. l. m. n. o. p. q. r. s. t. u. x. y. z. & .

Figure 1. From Giovannantonio Tagliente. *Lo presente libro*, Venice, 1524.

Daccio che nel ſcriuer tuo Tu habbi piu facilità, farai che tutti li carac tteri, ouogli dire lettere, pendano inanzi, ad queſto modo,  
*Virtus omnibus rebus anteit profecto.*

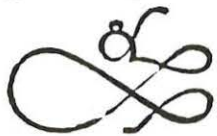
Non voglio pero che caſchino tanto, Ma coſi feci l'eſempio per dimoſtrarti meglio la via doue diè te lettere hanno da ſtare pé denti

Figure 2. From Ludovico Vicentino degli Arrighi. *La Operina*, Rome, c. 1524.

Cancellaresca Formata.

Hor quali adunqz à tanti tui meriti  
Potransi lode dar pari? Qual lauro  
Ò mirto circondar à tuoi  
Crini sacri di corona degna?

A b c a e f g b i k l m n o p q  
r s t u x y z.



Palatinus Romæ Scribebat  
Anno Domini .  
M D XXXX

A uolere' imparare' regolarmente' questa  
Eccellente' Virtù de lo Scriuere',  
Qual si uoglia Sorte' di  
Lettere, è' necessa  
rio

primieramente' sapere' tenere' ben la penna  
in mano,

Senza la quale' auuertenza, è' impossibi-  
le' peruenire' alla uera perfettione' de lo  
Scriuere'.

Et però auuertite che la penna si  
deue' tenere' con le' due' prinne'  
dita' appoggiandose' so-  
pra' l' terzo

Per che' tenendola altrimenti, Il tratto no  
uerria sicuro, ma'  
tremolante'.

Figure 3. Classic chancery hand from Giovambattista Palatino. *Libro Nuovo d'imparare a scrivere*, Rome, 1540.

issima, sed quod omnium literarum  
 huius protractionum tenuis-  
 sima, et proxima.  
 Enimvero que per c b angulos  
 commeat proprium hoc sibi no-  
 men habet ✓

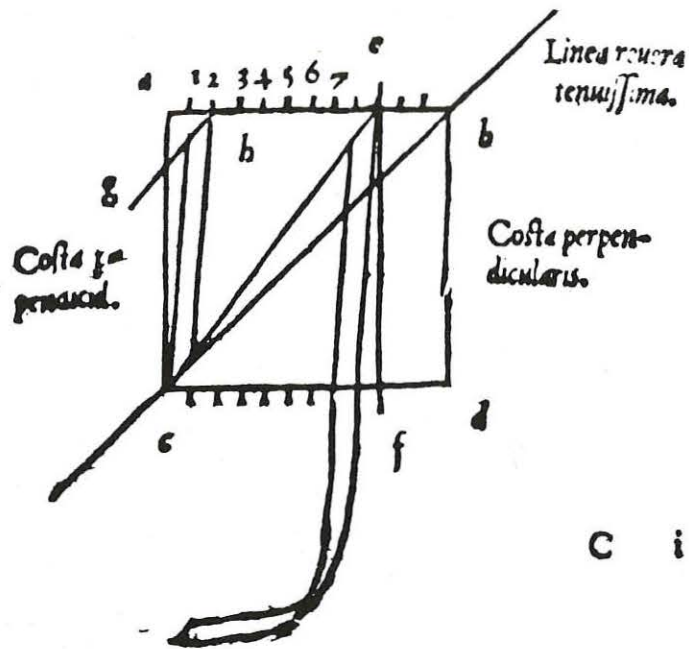


Figure 4. Page from Gerardus Mercator's *Literarum Latinarum*. Louvain, 1540.

Figure 5. Classic chancery cursive from Augustino da Siena. *Opera*, Venice, c. 1565.

Dipoi hauerim memoria le sotto Scrite  
 Regolette.  
 Cioè sapere la distantia da uno verso à l'altro  
 qual'è questa. diu byslonghi quadri, ò uero  
 due grandezze della  
 lettera a.

The diagram shows the letter 'a' on a set of four horizontal lines. The letter is formed by two vertical strokes and a curved top stroke. The top stroke is divided into four equal segments by three vertical lines.

Per la uera chancellaresca misura del'aste  
 Et gambe, la qual' usar si debbe' nel chan-  
 cellarescho scruiere' com' e' uedi  
 nel presente et  
 annotato e sempro

This diagram shows the letter 'a' on a set of four horizontal lines. The letter is formed by two vertical strokes and a curved top stroke. The top stroke is divided into four equal segments by three vertical lines. The letter is labeled 'a' and 'm' at the bottom.

slant (see Figure 2) and adds: "But I don't want you to tilt them quite so much as that." Palatino states: "Note that the chancery letter should lean a little forward, because in this way it can be written more quickly: moreover, if it slopes in the opposite direction, it is ugly and slow to write." Augustino and Yciar say much the same—Augustino: "Make sure that the letters slope towards the right, because you can write and form your letters more readily and more rapidly;" Yciar: "Note that the whole should lean forward a little: for in this way it looks more elegant and can be written more rapidly."

Mercator, as so often, hits the nail on the head. He provides his readers with a drawing of a letter *y* on a grid, from which it is possible to calculate a slope of  $5^\circ$ . Upright letters, such as those used in printscript, can confuse children who are learning to write. Uprightness is neutral, uncommitted; it will lead to either backward or forward slope as the lower or upper parts of letters are pulled forward under the gravitational force of increased speed. An alphabet with a slight slope removes ambiguity and leaves the letterforms sufficiently close to those of the printed word for those starting to read.

#### *Pen angle*

The tool for writing on which the writing masters concentrate is the quill, though Erasmus, and no doubt other scholars, often used a reed. Metal pens were also used. The quill is cut to a bevelled, chiselled edge which normally is at an angle of  $90^\circ$  to the vertical axis of the pen, though a slight angle was sometimes allowed. Here again many writing masters found some difficulty in defining the angle at which the pen should be held in relation to the line of the writing. Tagliente, for example, states: "My view is that you should not hold the pen by the edge of the nib, not with its full width, but obliquely, i.e., so that the full width of the pen always remains at an angle." Palatino's recommendation is that "the pen should not be turned in the act of writing, but must be kept steady at a slight angle." Yciar gives clearer guidance, though he obviously had some difficulty in expressing it and adopted the formulation of an earlier Spanish scholar, Vanegas. He writes: "You must keep the pen firm in the hand without twisting or turning it between your fingers; it should always remain in the same position with your arm resting on the table. . . . The position of the pen on the

paper, when the letter is situated on the same axis as our body, should be somewhat tilted, as if the two tongues of the nib were placed on a die in such a way that the upper tongue points to the top right-hand corner, and the lower to the bottom left-hand corner." Since all faces of dice are perfect squares, the angle is  $45^\circ$ . Once again Mercator gets to the heart of the matter in a few words: "The pen should invariably be held in such a position that its broadest stroke would join the opposite angles of a square." In practice, an edged pen, held constantly at an angle of about  $45^\circ$ , produces a satisfying sense of direction, a purposeful forward motion, which, when once it becomes second nature, is helpful in mastering the inefficient, directionless instruments used today.

#### *Letter proportions*

The character of the italic hand depends greatly on the proportion given to the small letters such as *a*, *n*, and *o* and on the ovoid shape used with letters that have a bowl such as *a*, *d*, *g*, and *q*. The question of proportion is especially significant. Insofar as models reproduced from wooden blocks can be regarded as a basis for measurement, the ratio of width to height used by Tagliente and Arrighi is about 3:5. Mercator's manual contains a diagram from which it can be deduced that the ratio which he recommends is 2:3. There is thus very little difference between the masters. Palatino, however, in 1540, followed by Augustino a quarter of a century later, advocated a 1:2 proportion. This was a fundamental change. It leaves much less room for diagonal strokes; they have to be made at a sharper angle, thus increasing their width relative to the horizontal and vertical strokes. There is a considerable risk that the letters will be too sharp or angular, producing a zig-zag or saw-edge effect. It was precisely on this point that, when the crisis of the classic italic hand came in the decade that followed the publication of Palatino's book, its trenchant critic G. F. Cresci rested his argument.

The crisis was resolved in two ways. In Italy and gradually throughout Western Europe, a new style, which led ultimately to the copperplate script, supplanted the earlier italic hand; in Spain, however, primarily under the influence of Francisco Lucas, the 1:2 ratio was dropped and the former 2:3 ratio restored. This more rounded letter was the hallmark of the Spanish *bastarda*, as it was called; it had a long life in Spain and is the true successor of the italic hand despite its name.

To return now to our authorities, Fanti is not specific about proportion. "The chancery letter *a*," he says, "is derived from a quadrilateral. You must first place the pen above the line at a height which seems to you appropriate to the size of the pen which you are using. Then move the pen to the left and parallel to the writing line. When the pen has moved to half the letter-height that you have selected, then descend forthwith to the line with a curving stroke, which should make a small bend, curving not too much, but almost imperceptibly. When the pen has touched the lower line, then move it up in a straight line so that it joins the point from which you started the first stroke. Then bring the pen straight down to the line again and, turning back up again, give the letter a little of a certain movement, which is called the 'dead line' because it is almost invisible." It can be seen that the width of the letter, which is made up of the initial horizontal stroke, plus the space necessary to make the curving downstroke, must be more than half the height of the letter.

Tagliente states, "All the letters of the chancery alphabet are derived from the following oblong [*he gives a sketch consisting of four dots*]." He does not attempt to describe the ovoid body of the round letters, but again provides a little sketch, saying "You should learn first the following body-shape, which is derived from a sloping oblong. To make *a*, one places a vertical line to the right of the body-shape."

Vicentino does not analyze the construction of the letters but, like Tagliente, relies on a sketch. He observes that "All the bodies which rest on the line on which you are writing should be made so that they fall within an oblong quadrilateral, not a square [*sketch*] for, to my eye, the letter needs to be based on an ellipse rather than a circle. You will find that it will turn out to be circular if you shape it inside a square, and not an oblong." As indicated earlier, the ratio which appears to underlie the sketches drawn by Tagliente is about 3:5. In practice Vicentino writes a slightly narrower letter than Tagliente.

Palatino's evidence is crucial. He writes: "Chancery letters which have a body need to be half as wide as they are high, so that they make a double square: for if you make them within a single square, they will—so far as the proportions of their bodies are concerned, belong to the mercantile, not the chancery script." Then, as though stepping back from the abyss, he continues, "But

I don't say that it is necessary to observe these proportions each time that you have to write because that would be such a difficult and tedious business. I resolved, however, to set out this proportion, like the others which I have mentioned, for the benefit of those who wish to master every aspect of this art, both in theory and in practice. To make the letter *a*, you should begin with a horizontal stroke and with a light turn, go down with your pen, making the downstroke. Then with a diagonal turn, move up to join the horizontal and then come down again with another downstroke. . . . *Give the letter its proper roundness and elegance.*" It is significant that Palatino, who had considerable influence in the 1540's, changed his hand after Cresci had criticised its angularity, and brought it very close to the model that Cresci was advocating.

Augustino follows Palatino, but without any saving clause. "From the point of view of geometry," he says, "the true chancery letter is based on two squares, not one, if you wish to shape and write it correctly."

Yciar's testimony is ambiguous. He starts by saying that "the chancery letter, when given its correct construction and dimension, should keep to the proportion and shape of a rectangle, the height of which is *almost* twice its width," but goes on to draw a pair of parallel lines, commenting "the body of the chancery letter will be bounded by these lines so far as its height is concerned; its breadth, however, . . . will be equal to half the distance between these two lines." He repeats Palatino's reservation: "I do not mean that we must always observe this measurement in the chancery hand, but that, once we have understood the ideal proportion, we can use it as a guide and keep it as far as possible, especially when we are starting to learn it." His examples of handwriting exhibit letters somewhat more rounded than those proposed by Palatino.

There is no ambiguity about Mercator. He gives an explicit diagram (see Figure 4) from which it is plain that he favored a 2:3 ratio. In his text, he writes, "All letters that fall within the writing lines must have the same width as letter *y*, with the exception of *m*."

#### *Ascenders and Descenders*

These are the lines which go above the band of writing (as in the case of *h*) or below it (as with *g*). The elegance of a script will depend much upon their length in relation to the other letters.

Fanti recommends that "the distance between one line and another in the chancery script should be four times the height of the letter (according to the size that you intend to make); and the ascenders and descenders should be equal in length and should occupy these quarters of the space between the lines more or less." Another way of putting it might be that the distance between lines is four *x*-heights: the band of writing occupies one *x*-height, the ascenders another, and the descenders a third. Three of the four *x*-heights are thus accounted for, the fourth being divided so that half an *x*-height separates ascenders from descenders of the line above and the other half is the space between descenders and ascenders coming up from the line below. Tagliente says, "All ascenders and descenders should be of equal length;" Vicentino: "Take care that . . . all the long ascenders are of equal height . . . similarly the descenders should be of equal length;" and Palatino: "The height of all long downstrokes [i.e., *ascenders and descenders*] should be twice that of the body of the letter: they should be equal in length whether they go above or below the line." Augustino has a sketch of four parallel lines with the small letters falling between the inner pair, ascenders rising to touch the top one and descenders going down to the bottom one; later he states: "The vertical lines which extend above and below the bodies of the letters should be regularly constructed to the same height or depth." Yciar's opinion is that "All the ascenders and descenders of the long letters, whether above or below the writing line, must be of equal size, their length being measured as the sum of their body height plus that of the band of writing." Logical as ever, Mercator starts his book by asking his pupil to mark off with dividers equidistant points corresponding to the number of lines to be written and, then, having narrowed the dividers to the height of his writing, to construct pairs of parallel lines within which the written material is accommodated. Further on, he says that all the short downstrokes (such as those of *i*, *m*, and *u*) should slope equally to the right and be equal in length within the parallels. "Of the remainder, those with ascenders rising above the parallels and those with descenders are twice as long, while those that have both ascenders and descenders are three times as long." There is thus general agreement about the length of ascenders and descenders for handwriting.<sup>3</sup>

Many writing manuals today teach rather stubby models with ascenders and descenders of about half the relative length found

in the chancery hand. Since, in writing cursively, we tend to shorten long lines, it is wise to teach the classic proportions.<sup>4</sup> Moreover, it is a fact of common experience that compact writing with the lines well spaced by elegant ascenders and descenders is more legible and economical than lines of fat sprawling letters separated by much smaller spaces.

#### *Spacing of letters and words*

Fanti's instructions are as follows: "Now we have to discuss the distance between one letter and another. This should be equal to the width of the black parts of the letter. For example, the space between two *n*'s should be the same as the width of its two legs when one is placed next to the other. Similarly the distance between words should be such that an *o* or *n* could fall between them." Tagliente suggests a somewhat wider space between words, advising his readers to "See that the distance between letters always equals the space between the legs of *n*. . . . The distance between one word and the next should equal the space occupied by the letter *m*." Vicentino and Palatino have a similar rule, the former writing: "Make sure . . . that the distance between one word and another is equivalent to the width of an *n* and that, as you join one letter to another, the distance between them equals the width of the white space between the legs of *n*." So, too, Augustino: "The space which should separate one letter from another should be equivalent to the white space between the legs of a well-shaped *n*. The interval or spacing between one word and another . . . is the full width of the letter *u*. These rules should be applied according to the judgement of the eye and not always by actual measurement, because it would be tiresome to measure every letter as you write." Yciar also relates his spacing to the letter *n* but to an extraordinarily narrow version of the letter. He writes: "The space between each letter should equal the distance between the legs of the *n*. And if someone should object that this still does not determine it, because the space in the middle of an *n* is not certain as we have not so far mentioned the point, I reply that the correct proportion of the white space between the legs of the *n* is that it should be as wide as the thickness of one of its legs. . . . The distance between words should equal twice the white space of an *n*, that is to say, that the space between words is double the space between letters." Mercator offers no guidance about word

spacing, but his rules for letter spacing are more sophisticated—"the distance between individual letters should be the same as that between the two downstrokes of *y*, but the distance between *c*, *e*, *f*, *g*, *r*, *t*, and *v* and the succeeding letters should be half of this."

### *Capital letters*

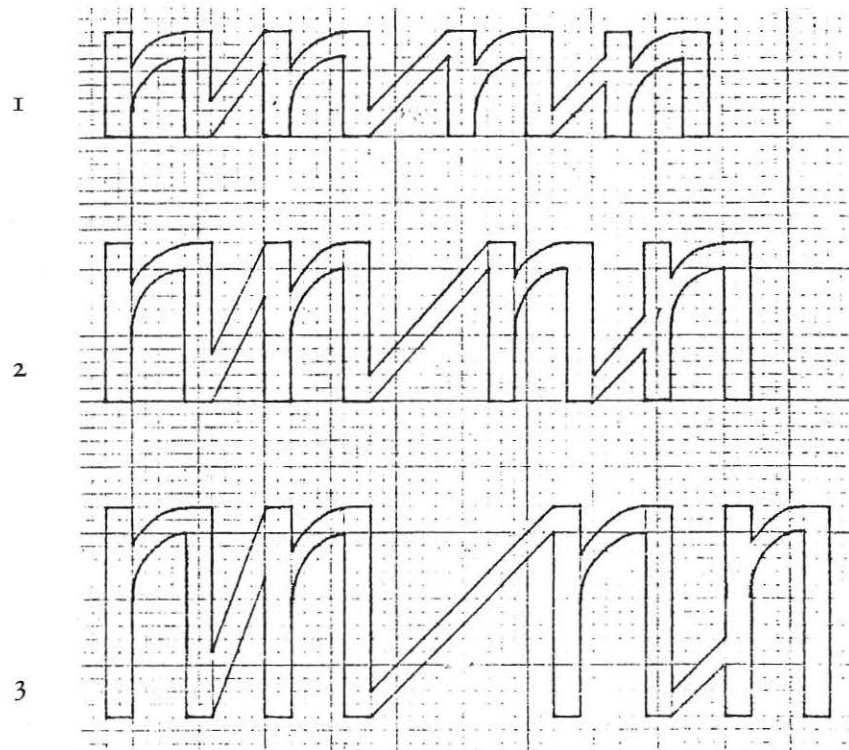
In forming the capital letters the discipline imposed by the canons which regulated the writing of minuscules was to some extent relaxed in favor of personal expression. Writing masters usually took this opportunity to display their individual skill, *élan*, and inventions. Thus we find a pleasing contrast between the legible regularity of the text and the freedom of the capital letters. The price was that writing masters could not, perhaps would not, give detailed rules for the construction of majuscules. Thus Fanti merely refers the student to his models, which, as already mentioned, were never printed, while Tagliente keeps off the subject. Vicentino says: "Write your majuscules so that they always stand upright, making them with confident, well-defined strokes with no shakiness about them. . . . It should not be a great effort for you to learn all the majuscules once you have trained your hand with the minuscules. . . . I will say no more than that you should try to learn to shape the majuscules as you find here in the example which I have written for you." Nor is Palatino more explicit, merely stating: "The chancery majuscules are all derived from the same three basic strokes as the minuscules. But because there are no fixed rules for them, they are made according to the judgement of the eye. Note that the strokes should be lively and confident, with no shakiness." Augustino says that the capital letters "do not have any rigid rules governing their construction because they are written in various sizes and fashions according to the way in which the quill is cut. They can be formed with a variety of strokes and they are made more rapidly with the eye than by any other method. They should always have lively confident strokes, not spoiled by shakiness or any other fault, if you want to construct them properly . . . copy the models that you see here." Yciar, who relied extensively on earlier writers for much of his work, is at a loss: "I declare that none of the authors who have come to my notice has so far given rules for the construction of these majuscules. Battista Palatino, the most recent writer, says that there is really no fixed rule other than that you should make them accord-

ing to the judgement of your eye, copying the model alphabet which he has provided and taking pains to fashion the strokes lightly with a very steady hand." Mercator is a trifle more helpful: "Capital letters correspond in dimension with their respective minuscules. They have the same slope to the right but can be perpendicular if preferred. Sufficient examples will be found throughout this manual and in the alphabets that follow."

### *Joins*

The question of joins is closely related to the proportions of letters, their spacing, and the angle at which the pen is held. Let us assume that the width of, say, letter *n* is four units (such as pen-widths), the legs accounting for two units and the white space between for the other two units. These are typical proportions for the classic chancery hand. Let us then apply the writing-masters' canon for letter spacing, i.e., the width of the white space between the legs of *n* (or two units). If we construct on the base of four units (1) letters *n* in the proportion 1:1, i.e. four units high; (2) letters *n* in the proportion 2:3 (Mercator's), i.e., six units high; (3) letters *n* in the proportion 1:2 (Palatino's and Augustino's) and line up each series of *n*'s so that a space of two units separates one from the other, it becomes immediately clear that the type of join is different in each example. Figure 6 shows the three cases in crude, schematic form, using two pairs of letters. In addition, the line connecting each of the pairs shows what happens when the bottom of the preceding *n* is linked to the top of its successor by a diagonal join of 45°; invariably the consequence is extravagant spacing. If, however, the recommended spacing is observed (as within each pair), the result is as follows. In case (1) we can join the two *n*'s diagonally without too much distortion, but the space between letters is too generous. Case (2) demands a sharper angle and therefore a thicker stroke. In case (3) the angle is so steep that the writer will almost certainly twist his pen in writing and this stroke itself will become so wide as to impair the contrast between thick and thin which is so characteristic of the italic hand. There will also be a tendency to try to make room for the join by over-sloping the same letter. It is surprising how often even the best scribes do this. The word *in* provides a good test. The choices boil down to: (a) letter spacing that will lead to a sprawling script (popular with composers of contemporary manuals, with a few honorable exceptions), (b) attempting

Figure 6. Schematic diagram to illustrate differing effects of joining letters *n* according to variations of letter proportion and letterspacing. The first join in each set is from the bottom of one letter to the top of the next with correct spacing; the second shows the spacing required for a full diagonal join from the bottom of one letter to the top of the next; the third is the result of diagonally joining correctly spaced letters. In set (1) the letter proportion is 1:1, in set (2) 2:3, and in set (3) 1:2. Note that in this diagram the letters are upright, not slightly sloped, and no account is taken of the variations in line thickness which a penhold of 45° produces.



to join at the cost of spoiling the rhythm of writing and sometimes the shape of the succeeding letter, (c) preserving moderate spacing and letting the letters join as they wish in a natural fashion—a kind of free love, if you like. On the whole the Italian writing masters tended to adopt this third solution, though not entirely.

Fanti offers little guidance. He says that the joins are made with the flick which ends such letters as *a*. When constructing it, you must give the letter a little of a certain movement which is called the “dead line” (*linea morta*) because it is almost invisible. Elsewhere he compares it to “the tail of a lion.” Note that the stroke is a short one: it cannot be used when the letters are either too far apart or too tall. Tagliente describes the stroke as a “graceful little turn which is called the ‘finishing stroke’ because it finishes off the main stroke.” He puts forward his scheme rather inadequately by illustrating how the word *magnifico* is written: “First make an *m* with its finishing stroke. Lift your pen and make an *a* next to the *m* (thus giving us ‘*ma*’). Starting from the finishing stroke of *a*, make the upper bowl of the letter *g*. After you have completed *g*, pick up the opening stroke of *n* from the bowl of *g*, and make the letter *n*. Without lifting the pen from the paper, continue the finishing stroke of *n* and make the letter *i* (this gives us ‘*magni*’). Next write the letter *f* and next to it the letter *i* in one movement (this gives us ‘*magnifi*’). Similarly continue the finishing stroke of *i* and write the first circular element of *c*, then add to *c* its head piece.<sup>5</sup> Next make the letter *o* beside *c* (and this gives us ‘*magnifico*’).” The student is advised to go on “joining and linking all the letters above and below as far as you can without lifting your hand, unless you have to, until you have completed the word.” Although Tagliente’s language is imprecise, he seems to be saying that it is not necessary to try to join each letter but to allow the letters to meet as convenient.

We get more detailed instruction from Vicentino, whose proportion for small letters is roughly 3:5. He writes: “As regards the small letters of the alphabet, some can be joined to an immediately following letter and others cannot. Those that can be joined to a succeeding letter are the following: *a, c, d, f, i, k, l, m, n, s, t, u*. Of these, *a, d, i, k, l, m, n, u* may be joined to every succeeding letter: but *c, f, s, t* can only be joined with some. The remaining letters of the alphabet, i.e., *b, e, g, h, o, p, q, r, x, y, z*,<sup>6</sup> must never be joined to the letter that follows. Nevertheless I leave it to you to

decide whether to join or not, provided you keep your letters even." The last six words are the acid test (Figure 7).

Vicentino then gives an example showing *a* joined to every other letter of the alphabet. In some cases, the join cannot be made without being lengthened in inadequate space and distortion follows. The junction of *im* is a case in point. Thus Vicentino, by his own example, makes it doubtful whether the letters that end like *a* should be joined to every succeeding letter. Vicentino concludes with advice for joining *d*, *f*, *s*, *f*, and *t* (see Figure 7).

With his 1:2 proportion for letters, Palatino has to face the problem in its acutest form. He commits himself to finishing letters like *a* "with a short upward diagonal stroke. This stroke serves to join and link one letter with another." He then states: "As regards the joining of one letter to another—since other authorities have written about it at great length and really in a very confused manner—I will give you this concise rule: all the letters which end in a little diagonal or a flick of the pen, such as *a*, *c*, *d*, *e* are joined to immediately succeeding letters . . . *f* and *t* are joined [by the crossbar] to all letters without ascenders." Palatino preserves the canon of spacing and the angle of his pen. In practice, therefore, most of his joins touch the succeeding letter quite low down. In principle, he is keeping to Tagliente's rule of comfortable contact.

Augustino, whose letters are constructed to Palatino's 1:2 proportion, gives four rules: "All letters which begin with a diagonal serif can, and should, be joined with the preceding and succeeding letters . . . but those that end in a crossbar, such as *f* and *t*, are joined by the crossbar to the succeeding letters. The following letters, *b*, *g*, *h*, *o*, *p*, *q* do not themselves make a join, but they may be joined by other letters. The following characters, *x*, *y*, *z* cannot be correctly attached to other letters."

Yciar refers to the "little serif," which completes letters like *a*, and "serves to connect one letter with another." Then, in somewhat fanciful language, derived apparently from Erasmus, he writes: "Some letters are on such bad terms with each other that

Saperai anchora Lettor mio che' dele'  
littere' piccole' de'lo Alphabeto,  
alcune' si' panno ligare' con le' sue' segue-  
ti, et alcune' no: Quelle' che' si  
ponno ligare' con le' sequenti, sonno  
infra scritte, cioè, a c d f i k l m  
n s t u  
Dele' quali a d i k l m n u si' ligano  
con tutte' le' sequenti: Ma c f s t li-  
gano sol con alcune': Lo resto poi de'lo  
Alphabeto cioè b e g h o p q r x y z  
non se' deue' ligar mai con lra  
sequente'. Ma nel liga-  
re, et non ligare' ti  
lascio in arbitrio  
tuo pur che' la  
littera sia e-  
guale'.

A VIII

they absolutely refuse to join in any friendship or intercourse with others: for example, *g, h, o, p, e*. . . . Other letters are affectionate and sociable by nature and, so far as they can, they do not withhold their intimacy from any other letter. Such are all those that end with a diagonal serif, *c, d, e, l, m, n, t, u*, etc. . . . The second rule is that *f* and *t* can be joined by the crossstroke to succeeding letters."

Mercator teaches that "all letters that end in a serif rising from the lower line of writing should be joined, by prolonging the serif, to those that follow, with the exception of *c*. . . . So *e, c*, and *t*, although they finish with a hairline at the foot, cannot be joined to the following letter. So long as a crossbar does not follow, letters are connected with a single stroke of the pen . . . but when a crossbar follows, the diagonal is prolonged from the previous letter to a point a little beyond the center of the lines of writing: then you must transfer the pen to the upper line." Because of the 2:3 proportion of his small letters, Mercator has relatively more room for his diagonal joins. He prolongs them, but not as far as the top line of writing; even this is sufficient to give his models a strong diagonal movement.

The real proof of a system of joins is whether it allows the even spacing of letters standing compactly together. Unless the emphasis is put on preserving sound letterforms and this sort of spacing, joins will tend to be excessive and are likely to result in writing that is either squashed up or (more probably) flaccid, floppy, and sprawling. It slows up the writing and makes it more difficult to read quickly. Excessive joining can also become a mania. In one recent model, for example, which is claimed to be "italic," the descender of *q* has been truncated, simply to facilitate a pointless join with the succeeding *u*.

#### Conclusion

Such were the canons that regulated the classic chancery hand. In our own day, this hand has been revived, under the name of "italic," as a successful solution to the problems of modern handwriting. The italic models which approach most nearly to the spirit and effectiveness of the original are those of Alfred Fairbank as seen in his *Handwriting Manual* and *Beacon Writing Series* (Figure 8). Many of those who have subsequently tried to attract attention in this field have found it convenient to describe their

## MUSIC

*Orpheus with his lute made trees,  
And the mountain tops that freeze,  
Bow themselves when he did sing:  
To his music plants and flowers  
Ever sprung; as sun and showers  
There had made a lasting spring.*

*Every thing that heard him play,  
Even the billows of the sea,  
Hung their heads and then lay by.  
In sweet music is such art,  
Killing care and grief of heart  
Fall asleep, or hearing, die.  
John Fletcher*

Figure 8. A page from Alfred Fairbank's *Beacon Writing Series (Book Six)*. The Alcuin Press, Portland, Oregon, 1978.

wares as italic when they are manifestly not consistent with the primary canons. This is not to say that such models are bad: only that they are sailing under false colors. The commonest deviations are sprawl, over-wide letters (leading to over-wide spacing), excessive slope, overstressed, redundant joins which break the rhythm of writing and impair spacing, and miscellaneous fads, presumably intended to demonstrate the author's originality. And there are those who argue that "the directionless pen is the writing tool of today" and revert to the Altamira caves or the stylus scrawl of the Roman fifth century or other remote times as irrelevant to contemporary handwriting as the Renaissance is relevant. One should never overlook a simple fact, either unknown to, or ignored by, art school innovators that Roman children learning to write with the "directionless" stylus were often taught with a directional aid. Quintilian, the greatest educationalist of antiquity, records and advocates the use of letters engraved in a woodblock, within whose grooves the pupil moved his stylus, in order to discipline the hand kinesthetically. It seems perverse, though entirely in keeping with the spirit of the age, to deprive a child of the simpler discipline of the edged pen, which will be of assistance to him in later life, when the ballpoint has been made obsolete by some other writing device, as will inevitably be the case.

1. Mercator called his manual "How to write the Latin letters."
2. Authors still write with monotonous regularity that this was "the first Italian writing-book" and that it came out in 1522.
3. Shorter ascenders and descenders might be used for copying manuscripts in a bookhand.
4. In *Il Secretario* (Venice, 1581), Marcello Scalzini wrote: "They can be readily reduced to suit a smaller letter, whereas short ascenders and descenders, once learnt, are difficult to reduce or lengthen gracefully."
5. Here *c* is made in two strokes like *e*, so neither letter is suitable for joining to the next.
6. *h*, when made by curving its second leg in a little at the bottom, does not have the diagonal finishing stroke and is, therefore, not joined.

## Résumés des Articles *Traduction: Fernand Baudin*

L'enseignement et l'apprentissage de l'écriture

*par Charles Lehman*

L'écriture est un artisanat traditionnel parfaitement distinct ayant ses propres critères de qualité. Le choix des instruments, des techniques et des modèles appropriés pour l'enseignement d'aujourd'hui exige la collaboration d'enseignants chevronnés, de chercheurs et de praticiens disposés à mettre en commun leur expérience, leurs connaissances psychologiques, historiques et pratiques en matière de modèles, de méthodes et de matériaux susceptibles de favoriser les progrès des débutants. Les fruits de ce genre de travail d'équipe se trouvent dans les publications de quelques calligraphes et dans les programmes d'enseignement de quelques écoles.

Les enfants nous montrent comment les aider à écrire

*par Donald H. Graves*

L'article donne les premiers résultats d'un programme pour deux années de recherches portant sur le comportement d'enfants du primaire qui apprennent à rédiger et à orthographier et sur les mouvements qu'ils font en écrivant. Toutes les phases de l'écriture influent sur son tracé et chaque étape dans l'éducation est marquée par des problèmes particuliers. Les débuts d'un enfant dans l'acquisition de l'écriture témoignent du même manque d'organisation que ses débuts dans l'acquisition de la parole. Plus tard, lorsqu'ils choisissent eux-mêmes leurs sujets, leurs mots et leur module d'écriture, les rédactions s'améliorent. L'écriture manuelle est celle qui révèle la manière dont l'enfant opère ses choix. Dans l'expérience en cours, quelques enseignants s'efforceront d'aider les enfants à plus de netteté dans le tracé des lettres, dans l'ordre des mots, dans la séparation des mots, dans la mise en page et, plus tard, dans le "rewrite" et la prosodie.

Une méthode dynamique pour l'enseignement de l'écriture

*par Iain Macleod et Peter Procter*

L'ordinateur a été mis à contribution pour enseigner l'écriture au moyen d'un écran cathodique et d'un "crayon." Les exercices supposent un ordre déterminé dans la succession et dans la direction des traits ainsi que dans leur précision. Chaque trait est projeté d'abord sous forme d'un mince filet; les mouvements de crayon corrects font apparaître un tracé plus gras. Les mouvements incorrects ne laissent aucune trace. Un point lumineux montre où le crayon doit reprendre le tracé. Le bon résultat correspondra au modèle correct de l'enseignant et non pas aux maladresses de l'élève—ce qui renforce l'image du bon résultat souhaité plutôt que les erreurs de l'étudiant. Cette méthode met l'accent sur l'écriture en cours de formation plutôt que sur l'écriture formée. Elle a été utilisée avec succès notamment pour apprendre à des handicapés mentaux à donner couramment leur signature.

La cursive romaine tardive,

*par Gunnlaugur S. E. Briem*

Les plumes pointues qui servaient autrefois pour écrire l'anglaise imposaient certaines limites aux mouvements dans le tracé des lettres. Le stylo-bille, les pointes en nylon et en feutre se laissent conduire dans toutes les directions et ne sont pas faites pour les dérivés modernes de l'anglaise traditionnelle. La cursive romaine tardive est une écriture documentaire sans pleins ni déliés. Elle mérite examen en tant que modèle possible pour un nouvel enseignement scolaire de l'écriture manuelle.

Les principes qui gouvernent la fabrication des plumes,

*par Chris Rhodes*

L'auteur examine une à une les décisions techniques qui se sont imposées aux fabricants de plumes dans les cent dernières années. Il s'attarde plus particulièrement sur l'essentiel qui est: le bec de plume. Les considérations ergonomiques et esthétiques ne sont pas omises. Une solution comprenant trois profils différents, mais adaptables sur un même corps de stylo, est enfin