

Stanley Morison's Aldine Hypothesis Revisited

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Admiration for the graphic vigor of the past brought historic fonts back into use in the modern period and renewed scholars' discussions of stylistic influence in type design. In this context, the British type historian, Stanley Morison, proposed in the 1920s a hypothesis that was to alter the writing of typographic history in the twentieth century. Then at the beginning of his career, and busy scouring archives for examples of fine printing, Morison observed that, at origin, the French roman types of the early sixteenth century shared traits with the romans used by the Italian Renaissance publisher, Aldus Manutius. The observation was at variance with the scholarly opinion of the period. Aldus was known for his Greek type, and for having had Francesco Griffo cut the first italic in 1501. Aldus's roman, by contrast, was overlooked by historians as they assessed the influence of Italian fonts on later French ones. Nicolaus Jenson's 1470 roman was heralded instead as the most likely model for the designs.

Praise for Jenson's roman was rampant in the literature. The most recent volley had come in 1922 with the publication of Daniel Berkeley Updike's landmark study, *Printing Types, Their History, Forms, and Use*.¹ Updike identified the strengths of Jenson's font as "its readability, its mellowness of form, and the evenness of colour in mass," and continued:

Jenson's roman types have been the accepted models for roman letters ever since he made them, and, repeatedly copied in our own day, have never been equalled.... No other man produced quite so fine a font, or had better taste in the composition of a page and its imposition upon paper.²

Updike went on to characterize the Aldine roman as "distinctly inferior to Jenson's."³

Even so, with little debate, Morison's Aldine hypothesis was quickly considered proven. It was supplemented by others, and is incorporated as fact in the modern literature on the history of typography. Scholars who work in the area, however, constantly encounter both the value of Morison's insight and the limitations of his construct. My work on some of the principal theorists and practitioners of French Renaissance typography,⁴ for instance, has raised many questions about the utility of the hypothesis, suggesting that it needs to be rethought and, if necessary, revised.

1 Daniel Berkeley Updike, *Printing Types, Their History, Forms, and Use, A Study in Survivals*, 2 vols. (Cambridge, MA: Harvard University Press, 1922; revised edition, 1937). Citations are from the revised edition.

2 *Ibid.*, vol. 1, 73–74.

3 *Ibid.*, vol. 1, 76.

4 Kay Amert, "Origins of the French Old-Style: The Roman and Italic Types of Simon de Colines" in *Printing History* 13:2, 14:1 (double issue) (1992): 17–40; "The Phenomenon of the *Gros Canon*," in *The Papers of the Bibliographical Society of America* 99:2 (2005): 231–263; and "Intertwining Strengths: Simon de Colines and Robert Estienne" in *Book History* 8 (2005): 1–10.

The discussion that follows examines the development of the Aldine hypothesis and situates it in the cultural concerns of the period. It explores the relation of the Jenson and Aldine romans through microanalysis of their features. It considers contributions made by scholars other than Morison. It applies the hypothesis to the text romans used by Simon de Colines and Robert Estienne, and considers their relation to a roman cut by Claude Garamond. The substance of the Aldine hypothesis is reconsidered at the essay's end.

The Development of the Hypothesis

In the decades before Morison formulated the Aldine hypothesis, admiration for Nicolaus Jenson's roman prevailed not only among scholars but also among designers in their critique of nineteenth-century fonts and typographic practices. Begun mid-century and incorporating the "Fell Revival,"⁵ the criticism fostered interest in the use of historic fonts. It took a new turn in 1888, when William Morris established the Kelmscott Press. Dissatisfied with all romans available for his use, Morris chose Jenson's roman as the basis for the cutting of a new one he named "Golden." When, twelve years later, Thomas Cobden-Sanderson and Emery Walker established the Doves Press, they, too, chose Jenson's roman as the basis for their proprietary Doves type.

Study of these romans has shown that neither was modeled solely or closely on Jenson's. Instead, Morris redrew a related roman used by the Venetian printer, Jacobus Rubeus.⁶ He increased its weight to intensify its color, and added sturdy "slab" serifs to anchor letters and words. Percy Tiffin's drawings for the Doves roman were based on letterforms from several sources including the Rubeus, Jenson, and other romans.⁷ Thus, both romans differed from Jenson's: each incorporated taller capitals and heavier serifs, and the Golden type was much weightier than Jenson's. Despite this, the revivals were understood at the time as resurrections of Jenson's roman, inviting conflation of the features of the modern fonts with those of the Renaissance original.

Stanley Morison's letters to D. B. Updike suggest that he was rankled by the adulation heaped upon Jenson and the new fonts. In September 1923, he wrote:

I must regret that even you share their tremendous regard for Jenson.... I harbour the wish to pull down the mighty from his seat & to exalt the humble Aldus.... I am quite sure it is wrong to make the upper case the same height as the ascenders, it means that the caps are overlarge & dominate where they appear. Even Jenson though he reduced his caps retained, as I think, too much strength. A better proportion is kept in the Aldine *Poliphilus*—so it seems to me.⁸

5 Martyn Ould and Martyn Thomas, *The Fell Revival, Describing the Casting of the Fell Types at the University Press Oxford and Their Use by the Press and Others Since 1864* (Bath, England: The Old School Press, 2000).

6 John Dreyfus, "New Light on the Design of Types for the Kelmscott and Doves Presses" in *The Library*, fifth series, XXIX (March 1974): 36–41.

7 Marianne Tidcombe, *The Doves Press* (London: The British Library and New Castle, Delaware: The Oak Knoll Press, 2002), 12–23.

8 *Stanley Morison & D. B. Updike, Selected Correspondence*, David McKitterick, ed. (New York: The Moretus Press, 1979), 65.

Writing again on October 30, 1923, he reported that:

A few days ago we dined together at Emery Walker's house and talked most of the time about the late Mr. W. Morris of whose work I am by no means fond & whose Golden type I think positively foul—but then I do not revere Jenson as much as [Bernard] Newdigate & Walker, not as much as you do even. The Doves type is alleged by [A. W.] Pollard to be the finest roman fount in existence. I wish I could think so. Last week, I protested to Pollard that respect for Jenson had degenerated into superstition & that there were other types...⁹

In 1924, Morison published an essay in *The Fleuron* that argued on principle the superiority of the Aldine roman, and identified the path of its influence on later ones. "Towards an Ideal Type"¹⁰ posited that, while the best manuscript models for romans show capitals ranged below the full height of ascending letters, the romans first cut in Venice neglected this principle. The error, Morison argued, was carried forward by Jenson and Erhardt Ratdolt, and later revived by Morris and Walker. The roman cut by Griffo for Aldus he characterized as a "letter of better proportions" for its smaller capitals, the absence of slab serifs on the capitals, and its consequent ability to produce a "restful page."¹¹ The key artifact in the transfer of its influence was the woodcut-illustrated *Hypnerotomachia Poliphili* published by Aldus in 1499.

French interest in the Poliphilo and the notoriety of the Aldine editions abroad drew attention to Griffo's roman, and the Paris and Lyon typefounders followed this pattern. The prestige of French printing carried the Aldine design to other parts of Europe....¹²

In 1925, Morison published an article specific to that roman and its influence. In "The Type of the *Hypnerotomachia Poliphili*," Morison argued that:

The Poliphilus type is a direct ancestor of the family we know in England as "old face" ... as distinct from the types of the Jensonian school. The difference between the characters cut by Geofroy Tory or Claude Garamond and those of Jenson is obvious—and considerable. Nevertheless, it is a received tradition that Garamond modelled his letters upon those of Jenson. I cannot bring myself to believe this. Rather I suggest he had before him the "Poliphilus."¹³

Pointing to the parallel of the short capitals used in the *Hypnerotomachia Poliphili* and the "Tory-Garamond-Estienne" roman of 1535, Morison also mentioned similarities in the horizontal strokes in the "eye" of the "e," and in the forms of the capitals "R," "M," and "C," concluding that "on this hypothesis, it would appear that the

9 Ibid., 72.

10 First published as "Towards an Ideal Type" in *The Fleuron* II (1924), a revised version appears as "Towards an Ideal Roman Type" in Stanley Morison, *Selected Essays on the History of Letterforms in Manuscript and Print*, 2 vols., David McKitterick, ed. (Cambridge: Cambridge University Press, 1981), 23–29. Citations are from the revised version.

11 Ibid., vol. 1, 27.

12 Ibid., vol. 1, 27.

13 Stanley Morison, "The Type of the *Hypnerotomachia Poliphili*" in *Gutenberg Festschrift* (Mainz, Germany: A. Ruppel, 1925), 255.

roman of Griffo is the *fons et origo* of the so-called ‘old-faces.’”¹⁴ The article ends with a discussion of the original state of the *Poliphilus* roman first used by Aldus in 1495 in Pietro Bembo’s *De Aetna*. Morison described it as “brilliantly executed and showing the type to remarkable advantage,”¹⁵ and reproduced four of its sixty pages.

The *De Aetna* state of the roman figured more prominently in Morison’s later discussions of the Aldine romans than did the *Poliphilus* state. His introduction to the second edition of *Four Centuries of Fine Printing*, for example, argued that “Aldus never employed types which were immediately based on the Jenson model,”¹⁶ and continued:

The type of the *De Aetna* marks a new epoch in typography. The fame of the publisher added to the prestige of the new letter. It was copied in France (by Garamond, Colines and others)... Thus Italian and French typography merged in the stream of that vigorous “old-face” tradition which took its rise from the type of the Aldine *De Aetna*.¹⁷

Morison identified the key figures in the adaptation of the Aldine roman in France as Geofroy Tory, Simon de Colines, Robert Estienne, and Claude Garamond. His understanding of the roles they played, however, changed over time, as had his understanding of the relative merits of the states of Aldus’s roman. Initially, Morison construed Tory, for example, as a designer of types and mentor to Claude Garamond, later settling, instead, on understanding Tory as an advocate for Italian aesthetic ideals in Paris. He viewed Colines and Estienne primarily as scholarly publishers whose discernment led them to commission and use fonts on an Aldine model, and Garamond as the punchcutter responsible for the new types they used. On the basis of information contained in the unpublished Le Bé memorandum,¹⁸ Morison later added Antoine Augereau to the group, identifying him as Garamond’s teacher and a second Paris punchcutter dedicated to forwarding the Aldine model. Morison’s discussions regularly emphasized the importance of royal support for these efforts. The appointment by Francis I of Geofroy Tory and Robert Estienne as King’s Printers, for example, he considered a reward for their design reforms.

Two statements perhaps can stand for positions taken and connections made elsewhere by Morison on the French developments. First, *On Type Designs Past and Present* argued that Robert Estienne’s folio Bible of 1532:

... contains what is probably the finest use ever made of [the Garamond] letter. Estienne’s device and the headpiece of the title-page are signed with the Lorraine Cross, then the mark of Geofroy Tory, one of the foremost scholars responsible for the introduction of Italian fashions in the arts and crafts, and the headpiece encloses the word ‘Biblia’ cut in

14 Ibid., 256.

15 Ibid., 256.

16 Stanley Morison, *Four Centuries of Fine Printing: Two Hundred and Seventy-two Examples of the Work of Presses Established Between 1465 and 1924*, 2nd ed., revised (New York: Farrar, Straus and Company, 1949), 25.

17 Ibid., 26–7.

18 The memorandum was later published as *Sixteenth-Century Typefounders: The Le Bé Memorandum*, Harry Carter, ed., Documents Typographique Français III (Paris: André Jammes, 1967).

virtually the same characters that are found in Tory's own *Champfleury*, printed in Paris in 1529. Thus a link is established between Garamond and his Italian models.¹⁹

And second, here is Morison on Claude Garamond from *A Tally of Types*:

[Garamond] was incomparably the finest engraver of romans among the great first generation of French renaissance printers and publishers who, with Geofroy Tory, Henri Estienne and his foreman and executor Simon de Colines, led the movement away from gothic and towards roman. Their patron and pattern was Aldus, deliberately chosen by Colines.... Augereau's and Garamond's romans were modelled closely and intelligently upon Aldus's.²⁰

One aspect of Stanley Morison's professional affairs relevant to the Aldine hypothesis is his relationship with the Monotype Corporation. In 1921, he provided advice and specimens to the corporation toward its work on the revival of "Garamond," a project initiated by Morison himself.²¹ In 1923, he was appointed Typographical Advisor to the Monotype Corporation,²² and in that capacity he was intimately involved in its program of revivals, including two based on Aldine romans. In 1924, he made the first use of "Poliphilus," employing it as the text type of his *Four Centuries of Fine Printing*.²³ In 1929, he supervised the cutting of "Bembo," a roman modelled on that of Aldus's *De Aetna*.²⁴ While most of Morison's research on the history of typography was not "sponsored research" in the modern sense of that term, there was much overlap between his scholarly and commercial concerns.

The Jenson and Aldine Romans

As the quotations from D. B. Updike and Stanley Morison suggest, both men engaged in an approach to the writing of typographic history that was based in connoisseurship. Each endeavored to identify superior models for the design of roman types and to trace lines of descent from them over time. It was the traditional (and a valuable) method for organizing such accounts: it created paths through the welter of individual fonts produced over time, and it made connections that helped explain processes of evolution.

While thoroughly committed to that method, D. B. Updike clearly was aware of its limitations. On the relation of the Jenson and Garamond romans, for example, he said bluntly in his *Printing Types*, "Garamond is said to have based his roman on Jenson's model, but on comparing the two types, this appears untrue."²⁵ Stanley Morison was spurred by the incongruities he found to identify another model in the Aldine roman, one that, in his judgment, better explained the features of later fonts. At the same time, Morison was willing to overlook material evidence of some features of the Italian romans. Enlarging and comparing the fonts establishes intriguing points both

19 Stanley Morison, *On Type Designs Past and Present*, revised edition (London: Ernest Benn, 1962), 40.

20 Stanley Morison, *A Tally of Types*, new edition, Brooke Crutchley, ed. (Boston: David R. Godine, Publisher, 1999), 66.

21 Stanley Morison & D. B. Updike, *Selected Correspondence*, 58.

22 Nicolas Barker, *Stanley Morison* (Cambridge, MA: Harvard University Press, 1972), 123.

23 Stanley Morison, *Four Centuries of Fine Printing: Upwards of Six Hundred Examples of the Work of Presses Established During the Years 1500 to 1914* (London: Ernest Benn, 1924). For Morison's comments on Poliphilus, see *A Tally of Types*, 53–56.

24 Morison, *A Tally of Types*, 46–52.

25 *Printing Types*, vol. 1, 234.

Figure 1

Jenson roman (113mm/20 lines) from Macrobius, *In Somnium Scipionis Expositio. Saturnalia* (Venice: Nicolaus Jenson, 1472). Special Collections Department, University of Iowa Libraries, Iowa City, Iowa.

Hanc hoc biennio consul euerter. Entq;
quod habes adhuc hæreditariũ a nobis. C
triumphum egeris : cenforq; fueris:& ob
asiam grãciamq; : delegere iterum consu
conficies: numãntiam excindes. Sed cum
offendes rēpub. perturbatam consiliis neq;
tendas oportebit patriæ lumen animi ing
poris ancipitem uideo quasi fatorum uia
octies solis anfractus reditusq; conuerte
uterq; plenus: alter altera de causa habet

Figure 2

Griffo roman (114mm/20 lines) from Pietro Bembo, *De Aetna* (Venice: Aldus Manutius, 1495). Courtesy of the John M. Wing Foundation on the History of Printing, The Newberry Library, Chicago.

bemus inter nos: neq; enim arbitror cario
rem fuisse ulli quenquam; q̄ tu sis mihi.
Sed de his et diximus aliã fatis multa; et
sæpe dicemus: nũc autem; quoniam iam
quotidie ferè accidit postea, q̄ e Sicilia ego,
et tu reuersi sumus; ut de Aetnae incendi-
is interrogaremus ab iis, quibus notum
est illa nos fatis diligenter perspexisse; ut
ea tandem molestia careremus; placuit mi
hi eum sermonem conscribere; quem

of similarity and difference between the Jenson and Aldine romans, some well known, but others unacknowledged in the literature.²⁶ It also begins to demonstrate the perils of construing either one as the sole generative model for the later French romans.

One unexpected finding to emerge in a comparison of these romans, for example, is the extent of the likeness found in the forms of their lowercase letters. This undercuts an impression left by optical comparison of the fonts: seen at reading distance, Jenson's roman (Figure 1) appears wider. But in fact, the romans are overwhelmingly similar in lowercase letter shapes and widths, with only a few of Griffo's (Figure 2) slightly narrower than Jenson's, and one wider. The letterforms in these romans also are alike in the consistency of their axes, and both are calligraphic in that regard: the angle of stress created by the movement from thick to thin within the strokes of the letters is regular and predictable. The broadest stroke width also is uniform in the lowercase of both romans: there is only the barest hint of the paring or flaring of stems in either one. And optical impressions to the contrary, the romans also are similarly "fitted": both contain generous allotments of white space at the sides of individual characters.

26 For the purpose of comparison, the romans were enlarged to seven times their actual size. Features of the Jenson roman were checked against those of the fresh type shown in plate 11 of Joseph Blumenthal, *Art of the Printed Book 1455–1955* (New York: Pierpont Morgan Library and Boston: David R. Godine, 1973). Except for the elimination of some alternate characters in later uses of the type, the lowercase letters in the two states of Griffo's roman are alike. Samples of both are provided to illustrate the fresh condition of the roman in the 1495 *De Aetna* and the lighter capitals found in the 1499 *Hypnerotomachia Poliphili*.

Under enlargement, the differences between the romans are intriguing, too. One of those differences revolves around weight: contrary to some assertions about it, Griffo's roman is heavier than Jenson's. Expressed as a proportion based on the width of letter stems in relation to their heights in ascending characters, Jenson's shows a ratio of 1:11, while Griffo's is heavier at 1:10.

In the lowercase, another key difference is found in serif structure. Jenson's roman incorporates a sophisticated range of serif treatments: the shape, size, and lengths of his serifs differ greatly, with many biased in their lengths to the right of the stems. While both romans incorporate straight foot serifs, Jenson's roman also shows a slight concavity in the top serifs of the "m," "n," and "u." The first state of Griffo's roman included more assertive or fully flourished versions of some of Jenson's right-biased serifs as variants in the font. His treatment of serifs in the second state, however, is much more uniform. He used a compact, triangular top serif throughout the suite of lowercase letterforms, and his foot serifs are more or less evenly divided on either side of the stems. While serifs are the tiniest features of these fonts, the difference in the handling of serif structure is telling: Jenson prized variation, while Griffo moved toward uniformity.

The capitals devised for these two romans also vary greatly. Contrary to Stanley Morison's assertions in print (although he nearly acknowledged it in the September 1923 letter to Updike quoted above), both Jenson and Griffo reduced the heights of their capitals, dropping them one stem width below the height of the ascenders, making Jenson's 1:10 and Griffo's 1:9 in their proportions. Griffo's *De Aetna* capitals, however, carried weight beyond that of the stem widths of the lowercase, producing a heavier letter with a weight ratio close to 1:7. Griffo reduced that weight when he cut (or refashioned) the *Poliphilus* capitals in 1499 (Figure 3), making the stems of the capitals consistent in width with those found in the font's lowercase.

Closely inspected (and again contrary to Morison's assertions about them), few of Jenson's capitals employ slab serifs: most of them, in fact, are notably demure. Unlike the serifs found in his lowercase, they also are generally consistent in their shapes and forms. The great difference in the Jenson and Griffo capitals lies instead in the less sophisticated and classically informed analysis of letter widths (and thus shapes) found in the Jenson capitals. Without access to the later treatises of writing masters and geometers, with the advice they contain on restraining the widths of certain capitals, Jenson's capitals are wide, many of them built on the scaffold of a full square. As a consequence, the interior white spaces or "counterforms" they contain are large and thus noticeable in composition. Griffo, in contrast, constrained the widths of many of his capitals,

Figure 3

Griffo roman (115mm/20 lines) from Francesco Colonna, *Hyperotomachia Poliphili* (Venice: Aldus Manutius, 1499). Courtesy of the John M. Wing Foundation on the History of Printing, The Newberry Library, Chicago.

fe corne alle debole tergo re la ponderosa te
ualendo, sopragli uolubili genochii moril
de in queita simigliante angonia iacendo
discorreua, degli litii intricatissimi della in
della malefica Cyrce, si a caso per gli sui ue
me ufato el R hombo. Ad questi tali & tan
che, oue potrei io quiui trasi diuerse herber
cum la nigra radice per aiuto, & mio medi
non e, Ma che cosa e? Senon uno maligno
te? Stando cusi in q̄sti p̄ncio si agitaméti, le

creating smaller counterforms and, as Morison suggested, a more harmonious relationship between the forms of the lowercase letters and those of the capitals.

In sum, under enlargement, both the Jenson and the Aldine romans are exceptionally well cut. They are much alike in the forms of their lowercase characters. Each reveals a carefully integrated approach to design that created consistency in stroke widths, angle of stress, and letter shapes, sizes, and proximities. The result in each case is an admirable regularity, lightly offset in Jenson's roman by its variation in serif structure. Particularly given the fashioning of his capitals, Griffo's roman is the more consistent, but also the more solemn and "mechanical" of the two, while Jenson's roman is lighter and more rhythmical.

Other Contributions to the Hypothesis

Its framework established by Stanley Morison, the Aldine hypothesis was supplemented by other scholars whose research focused mostly on French developments. Writing under the pseudonym of Paul Beaujon, Beatrice Warde published an article in *The Fleuron* in 1926 on the origin of the "Garamond" types.²⁷ In a survey of Garamond's career, Warde accepted the idea that Garamond was a student of Geoffroy Tory, and she sought to substantiate the link between Tory and Aldus Manutius posited by Morison. Warde suggested that Aldus's *Hyperotomachia Poliphili* was "universally admired as a typographic monument," and that Tory's interest in the book was evidenced by the fact that he had found within it the idea for his own printer's mark, the broken vase (*pot cassé*).²⁸

Warde also established a chronology for the expression of Aldine influence in fonts produced in Paris. Simon de Colines's use in 1528 of a new Greek and italic marked "the introduction into that city of Italian (and particularly Aldine) characters."²⁹ The romans Colines then had at his disposal were "heavy in colour" and based on "the Jenson model," but the new roman he introduced in 1531

27 Paul Beaujon [Beatrice Warde], "The 'Garamond' Types, Sixteenth and Seventeenth Century Sources Considered" in *The Fleuron* V (1926): 131–179; reprinted in *Fleuron Anthology* (Boston: David R. Godine, 1979), 181–213. Citations are from the reprint. Warde used the original spelling of Garamond's name ("Garamont") throughout the article.

28 *Ibid.*, 183.

29 *Ibid.*, 191.

was as different from its predecessors as it could be; its “narrower proportions and longer descenders” produced “a lightness well carried by the carefully modelled serifs.”³⁰ Warde characterized Colines’s roman as “not copied closely after any former fount, but italianate in cutting.”³¹

In assessing the features of the similar romans introduced shortly thereafter by Robert Estienne, Warde followed Morison in describing them as directly derived from Aldus’s *De Aetna* roman. Presuming that “the three sizes are the same in form,” she based her analysis of the features of the Estienne romans on those of the largest size, a *gros canon*, finding that:

It is a narrower and lighter letter than Colines’s, a difference which makes the descenders seem longer. The capitals of the smaller sizes are noticeably lower than the top serifs of ascending letters, and condensed far more than in the case of Colines.³²

Warde’s list of letters particular to the Estienne romans, including several capitals similar to those of the *De Aetna* font, also largely was based on the features of the *gros canon*.

Warde linked Claude Garamond to the cutting of the Estienne romans by noting that the dozen roman capitals adapted for use with the first of the royal Greek types Garamond cut in the 1540s for Robert Estienne’s use came from one of Estienne’s earlier romans. The new roman capitals, different in their features, that were used with another size of the Greek Warde found to be identical with some labeled as Garamond’s in a specimen sheet issued in Frankfurt in 1592. The same capitals, she noted, also appeared in a roman used in books published in Paris from the 1550s. Warde concluded that “the lower-case of this design which we can safely call Garamont’s ‘later’ roman is similar to the Estienne 1532 fount: but the wider and more conservative capitals reflect the pattern of the pioneer Colines.”³³ “It remained the most popular roman in France until the end of the seventeenth century.”³⁴

In 1928, A. F. Johnson published an article in *The Fleuron* reassessing the career of Geofroy Tory.³⁵ It dispatched Tory as a designer of types,³⁶ but it widened the argument for Tory as a channel for Aldine influence in Paris. While his citation was faulty, Johnson provided a reference for the broken vase Beatrice Warde spotted and further suggested that the style of Tory’s illustrations for his *Books of Hours* also derived from the *Hypnerotomachia Poliphili*. Tory’s drawings, Johnson said, were:

... made with few lines on a white ground and almost always without shading. They remind us irresistibly of Venetian book illustration, and especially of Francesco Colonna’s *Hypnerotomachia Poliphili*. The fantastic style of this book would certainly appeal to the author of *Champ Fleury*.³⁷

30 Ibid., 191–92.

31 Ibid., 192.

32 Ibid., 195.

33 Ibid., 199.

34 Ibid., 199.

35 Alfred F. Johnson, “Geofroy Tory” (1928) in *Selected Essays on Books and Printing* (Amsterdam: Van Gendt, 1970), 166–89.

36 “Of direct Tory influence on French typography there is no trace.” Ibid., 187.

37 Ibid., 172.

Johnson's chapter on the sixteenth century in the 1938 survey, *A History of the Printed Book*,³⁸ contained a capsule statement of the Aldine hypothesis as it then stood. Johnson noted Claude Garamond's self-professed interest in cutting italics on an Aldine model, and his work cutting the royal Greek types on "cursive models like the Aldine."³⁹ As had Beatrice Warde, Johnson identified the roman capitals used with one of the royal Greek types with those labeled as Garamond's in the 1592 specimen, and he added:

The lower case also of Estienne's type of 1532 is identical with the lower case of the Frankfort types. It seems to follow then that it was Garamond who cut Robert Estienne's new romans.⁴⁰

Stanley Morison, Johnson acknowledged, had pointed out:

The striking resemblances between Estienne's roman and the first roman used by Aldus in the *De Aetna* of Pietro Bembo.... Apart from the general similarity of design, the modest height of the capitals, and the comparative narrowness of these two romans in contrast with Jenson, some small peculiarities of serif formation in the type of Griffo, repeated in Garamond, are a convincing proof of Mr. Morison's thesis.⁴¹

Elsewhere, however, A. F. Johnson discussed developments that altered or otherwise qualified the Aldine hypothesis. In his 1934 *Type Designs, Their History and Development*, for instance, Johnson amended the chronology established by Warde when he noted that:

Colines seems to have been experimenting with the design of roman for some years; editions of the Greek medical writer, Galen, printed in 1528 show a roman which except for a few letters is the same as the type of 1531. Even as early as 1525 the roman in which the first Tory Book of Hours was printed is an advance on the types which Colines had acquired from Henri Estienne.⁴²

The several romans introduced in Paris in the early 1530s, Johnson asserted, "cannot have been cut by one man, but that one at least was the work of Claude Garamond seems almost certain."⁴³ But it is clear that about even this, A. F. Johnson wasn't absolutely certain. After reviewing the evidence linking the French fonts of the 1530s with those of the 1550s, he concluded:

Either Garamond cut the Estienne fount or he accepted it as his model. At all events he won credit with posterity for the design.⁴⁴

38 *A History of the Printed Book, Being the Third Number of the Dolphin*, Lawrence C. Wroth, ed. (New York: Limited Editions Club, 1938).

39 *Ibid.*, 138.

40 *Ibid.*

41 *Ibid.*

42 A. F. Johnson, *Type Designs, Their History and Development* (London: Grafton, 1934), 62.

43 *Ibid.*, 62–64.

44 *Ibid.*, 64.

Despite the questions raised by A. F. Johnson and later by H. D. L. Vervliet⁴⁵ and others, the Aldine hypothesis was repeated often enough that it ceased to be a hypothesis. It passed instead into the realm of fact in the literature of the second half of the twentieth century. Popular surveys such as Geoffrey Dowding's *An Introduction to the History of Printing Types*⁴⁶ incorporated it, as did a scholarly survey as important as Harry Carter's *A View of Early Typography*.⁴⁷ Nicolas Barker's 1974 study, "The Aldine Roman in Paris, 1530–1534,"⁴⁸ assumed Aldine influence in the entire cluster of new romans cut in Paris in the 1530s, acknowledging Colines's 1528 roman, but crediting Claude Garamond with cutting fonts for Robert Estienne that ignited an Aldine "revolution." By the last quarter of the century, the notion of Aldine influence on later French practice had been broadly enough accepted to have fostered this familiar account within the mainstream of Renaissance history:

The Aldine roman types were being studied and imitated. ... The intermediary in this case appears to have been an antiquarian fanatic named Geofroy Tory, who returned to Paris some time in the early 1520s after a long stay in Italy and much earnest reading of the *Hypnerotomachia Polifili*. His views on the proper formation of antique letters were embodied in a work named *Le Champ Fleury*, which he published in April 1529, and which drew heavily on earlier Italian examination of classical inscriptions. The tradition that he "taught" the typefounder Garamond has never been substantiated: but by the early 1530s, Colines and Estienne, both of whom dealt regularly with Garamond, were using roman founts modelled on the type in which Aldus had printed *De Aetna*, and it was from Garamond's workshop that this style spread rapidly across Europe during the second quarter of the century.⁴⁹

Tory, Colines, Estienne, and Garamond

Geofroy Tory was indeed a central figure in the flowering of the graphic arts that took place in Paris in the 1520s and 30s. The Books of Hours he produced from the mid-1520s transformed that genre, and his *Champ Fleury* brought to Paris entirely new ways of thinking about language and letterforms. Certainly, his design ideas and his writing were informed by Italian Renaissance practice, but the striking thing about all of Geofroy Tory's efforts is their originality. It is an ideal he discussed in his writing, and a quality that makes his work distinctive to this day.

From this perspective, the understanding of Tory as fundamentally indebted to the example of Aldus seems a particularly weak link in the chain of the logic of the hypothesis. The "French interest in the *Poliphilo*" mentioned by Morison, for instance, began only in the 1540s, more than a decade after Tory's death. It is possible that, like Jean Grolier and Francis I, Geofroy Tory owned a copy of the

45 Hendrik D. L. Vervliet, "Les Canons de Garamont, essai sur la formation du caractère romain en France au seizième siècle," in *Refugiam Animae Bibliotheca* (Weisbaden, Germany: Guido Pressler, 1969), 481–500.

46 Geoffrey Dowding, *An Introduction to the History of Printing Types* (London: Wace, 1961).

47 Harry Carter, *A View of Early Typography up to about 1600* (Oxford: Clarendon Press, 1969), 70–73 and 81–86.

48 Nicolas Barker, "The Aldine Roman in Paris, 1530–1534" in *The Library*, 5th ser., 29 (1974): 5–32.

49 Martin Lowry, *The World of Aldus Manutius, Business and Scholarship in Renaissance Venice* (Ithaca, NY: Cornell University Press, 1979), 284–85.

Hypnerotomachia Poliphili. It is unlikely, however, that the broken vase on folio q5 suggested his mark in the same way that the dolphin and anchor on folio d7 had suggested Aldus's. The simple vase in the *Hypnerotomachia Poliphili* and the inscription at its base are many times removed from the elaborately articulated mark and the meaning of the motto Tory developed in the *pot cassé*. Similarly, Tory's motive for the use of an outline style in the illustrations for his Books of Hours likely had more to do with plans for their completion and sale than it did with homage to the Aldine woodcuts. Some copies of the *Hours* Tory sold as they were printed in red and black inks; others were fully illuminated, their initial letters and images completely covered by tempera and gilding; yet others, however, were half-colored in transparent washes that partially filled the outlined forms, creating a sense of modeling and three-dimensionality that made linear shading redundant.⁵⁰

Of the printers working in Paris, Tory was most closely allied with Simon de Colines. In 1523, Colines printed for Tory the *Epitaphia* he wrote after the death of his daughter. Colines was Tory's collaborator in the production of his Books of Hours. Colines published Tory's *Aediloquium* in 1530. And in 1531, Colines furnished the roman type for Tory's first endeavors as King's Printer. It appears that Tory, in turn, provided counsel to Colines. The revision of Colines's woodcut initial letters, a process that began in the early 1520s, for example, culminated with the production from 1527 of new suites of initials used both by Colines and Robert Estienne. The design of these initials has long been linked to features of the capitals that appeared later in *Champ Fleury*.

While earlier scholars were uncertain whether to accept a tradition that he cut types, it is now clear, in the words of the Le Bé memorandum, that Colines was "an expert in types."⁵¹ The program of typographical improvements and additions he launched in the early 1520s was extensive. It began with the cutting of a set of roman titling capitals and the revision of a *philosophie*, a small text roman, and soon involved the production of entirely new fonts. The first of them was a *saint augustin*, a medium-sized roman Colines used from 1526 and then forwarded to his stepson, Robert Estienne, for use in his folio Bible of 1528.

Along with an italic and a Greek, in 1528 Colines introduced two new romans: a *gros romain*, or large text roman, and a smaller *cicéro*. Their designs continued the lines of experiment and change begun earlier in the *philosophie* and *saint augustin*: both romans were lighter in weight and had more delicate serifs, longer descenders, and more inscriptional capitals than extant Paris romans. Colines later revised the design of both the *gros romain* and the *cicéro*. The 1531 roman Beatrice Warde described as "italianate in cutting" is in fact the second state of Colines's *gros romain*, as A. F. Johnson suspected.

50 The Pierpont Morgan Library copy of the 1525 Hours reproduced as no. 40 in Roger S. Wieck, *Painted Prayers, The Book of Hours in Medieval and Renaissance Art* (New York: Braziller, 1997), 59, is one copy that displays this tinted treatment.

51 *The Le Bé Memorandum*, Carter, ed., 29.

While construed in the literature as a separate font, the *gros romain* used by Robert Estienne from 1530 appears to have been an intermediate product of the same revision. Enlarging and comparing all three romans reveals that some of that font's lowercase characters are identical with those in the 1528 roman and many others with Colines's 1531 roman, while a few others and the capitals are unique to Estienne's variant. The font was one of three related romans that included a distinctive *gros canon*, a large roman Estienne used for the display of titles and headings in his books. While markedly similar to Colines's, the *gros romain* and the third roman, a *saint augustin*, have features, particularly the simplified forms and slightly heavier weight of their capitals, that were tailored to coordinate with those of the *gros canon*.

Robert Estienne made exclusive use of the *gros canon* from 1530 to 1536, when Colines began to employ it in his books as well. Colines revised the design of several characters and added others to fill out the font, an indication that he both cut and retained the punches for the *gros canon*. From 1537, he made it available on a selective basis to other printers in Paris. The design of the *gros canon* also was many times copied and rapidly entered into international use.

Beatrice Warde based her analysis of the Estienne romans on the features of the *gros canon*, and thus understood Estienne's as "a narrower and lighter letter than Colines's." Microanalysis of the *gros canon*, however, suggests that it was a letter designed very much for its purpose, a special case in the trio of Estienne's romans. It is both narrower and lighter, and has longer ascenders and descenders than any text roman.⁵² Mistaking the features of the *gros canon* for those of the entire group of Estienne romans obscured the similarity between the Colines and Estienne text romans, as did, perhaps, a difference in production methods. Robert Estienne printed mostly on dry paper rather than on dampened stock; this often made the quality of his inking and impression, and thus the appearance of his types, lighter than Colines's and other printers of the period.

The understanding of the relationship between Simon de Colines and Robert Estienne also may have contributed to a presumption of divorce in their typographic practices. The separation of their workshops in 1526 had been read as a sign of disagreement between them, something that might have set the stage for competitive publishing policies and a battle of typographic taste. The relations between Colines and his stepson, however, appear to have been far more genial than traditional accounts suggest. Carefully scrutinized, their publishing programs were, in fact, complementary. A pattern of cooperation and of the sharing of typographic resources begun in the 1520s also is evident through the end of Colines's career and beyond.⁵³ That this included the new romans introduced

52 Amert, "The Phenomenon of the *Gras Canon*," 241–43.

53 Amert, "Intertwining Strengths," 1–10.

Figure 4

Colines roman (119mm/20 lines) from Terentianus, *De Literis* (Paris: Simon de Colines, 1531). L. Tom Perry Special Collections, Harold B. Lee Library, Brigham Young University.

brica, ancipitia, prærupta sunt omnia: vt si non pertexere dico, sed hoc opus ordiri poterit, perinde qui se quum de Leucade præcipere se posse quom volet, sibi persuaserit. Non trufius? Quæ pars veritatis in academicorum est abdita? Quid tam dissimile sibi quàm tamen ob id facile notari possunt, aut in vicquom in tanta discretione, velut tantillo motenui separètur. An cuiuslibet auris est exigfonos, inquit Fabius? Non hercule magis q

Figure 5

Estienne roman (115mm/20 lines) from Jacobus Sylvius [Jacques DuBois], *In Linguam Gallicam Isagoge* (Paris: Robert Estienne, 1531). Courtesy of The Newberry Library, Chicago.

ipse publicarem, addita etiam grammaticanogallica: quo à permultis excussa, quid halitii planius intelligã. Quæ enim amicis edicdiudicanda ante editionẽ committuntur, tanta interim aut religione, aut negligentstant, vt quid mutandum, quid addendumexterendum sit, eorum monitu vix vnquafcas. Quæ vero in vulgus edũtur, etiam fi quæ vel Momo satisfacere possunt, tamẽ intum sæpe, aut etiam in anxie doctum inc

in the 1520s and 30s helps to explain the similarity in the design of these types, and does so more economically than a thesis of rivalry between them.

How much do their romans owe to the example of Aldus? The answer, in brief, is some things, but by no means everything. Comparing enlargements of the text romans used by Colines (Figure 4) and Estienne (Figure 5) with the fonts of similar size cut by Jenson and Griffo reveals, for example, that the Paris romans are identical in weight with that of Jenson and, at 1 : 11, are lighter than Griffo's. Like Jenson, Colines set the height of his capitals at 1 : 10. His analysis of their forms, however, is far more sophisticated than Jenson's, and is like Griffo's in this regard, taking into account classical inscriptional practice.

Figure 6

Garamond roman (118mm/20 lines) from [Charles de Marillac], *Discours sur la royaume de la trefve en l'an M.C.LVI* (Paris: Michel Vascosan, 1556). Special Collections Department, University of Iowa Libraries, Iowa City, Iowa.

toit, de uoir la guerre ouuerte & allu-
mee autant que iamais, commencer du
costé du saint siege, dont souloyent
uenir les moyés de tranquillité: de uoir
les deux plus grans Roys de la Chre-
stienté en telle combustion, qu'il fault
que le surplus fen sente: d'oyr les pleurs
du poure peuple tant affligé, qu'en lieu
de respirer, se uoit reduict en plus pro-
fondes calamitez: de sentir l'ire de Dieu

While both Morison and Warde thought Robert Estienne's capitals shorter than Colines's, they actually are identical in height and differ rather in their weight. The heavier weight of the capitals is a point of parallel with Aldus's *De Aetna* roman, but a more immediate parallel probably had precedence. As do their shapes and bias toward vertical stress, the heavier weight of the Estienne capitals echoes the *gros canon*, where the lowercase is built on a 1:13 basis, and the capitals are heavier at 1:10. One of the capitals, the "G," also is idiosyncratically shorter than others, as in the *gros canon*. Two "earmark" capitals in the *De Aetna* roman, the flat-topped "A" and the "M" absent a top serif on the right, appear in Estienne's. But both forms also can be found elsewhere in the years preceding the cutting of the Estienne roman.

In a general sense, the Paris romans are like both Venetian romans in employing nonarbitrary relationships among letter widths, with a unit of width based on x-height the most common lateral measure in all four. The Paris romans also are like the Venetian romans in conversely permitting variation in height among ascending and descending characters, variation that, in later romans, was replaced by uniformity. Beyond these general parallels, however, a host of differences between the Aldine and Paris romans emerge.

The fit of the Paris romans, for example, is tighter than Griffo's, creating an optically denser presence on the page, an effect that is counterbalanced by lighter weight and more silvery color. The Paris romans exhibit much less fidelity to calligraphy than had Griffo's, incorporating variation in stress, for instance, and thus an inner tension that brings a different texture to the type. While incorporating less variation in serif structure than Jenson's, the Paris romans have far more than Griffo's, with cupped foot serifs to keep baselines from getting leaden and individually tailored serifs found elsewhere. The nuances of the cutting of the Paris romans also differ considerably from Griffo's. Some letterforms, for instance, display

flared stems, a feature common in the traditions of punchcutting rooted in Strasbourg and Basel, the sources of many of the fonts earlier used in Paris. Both Paris romans also display slimming of the stems in the x-heights of selected letters, a technique nascent in the Jenson roman and developed by Colines to address the Renaissance problem of letting more “light” into letterforms.

Put differently, the approach found in the Paris romans differs from the Aldine by establishing suites of letterforms that are lighter in color but more tightly fitted, that are further removed from any calligraphic model, that embody more liveliness and graphic tension, and that arise from a combinatory technique that fused graphic ideas and practices from several milieux. They are inherently international in character, in part because they were the result of a relatively late, but nevertheless fresh analysis of the requirements and aesthetic of a roman.

The *gros romain* of similar cut identified as Claude Garamond’s (Figure 6) dates to the 1550s.⁵⁴ It is notably similar in appearance to Colines’s *gros romain* and is not, as A. F. Johnson and others had thought, identical with Robert Estienne’s 1530 *gros romain*. Comparing enlargements establishes that, at 1:11, Garamond’s *gros romain* is identical in weight to the earlier Paris romans, and thus lighter than Griffo’s. While much like Colines’s in their structural features, the capitals are slightly shorter than his at 1:9.5. Garamond subtly regularized many other features of the earlier Paris romans, making uniform the heights of ascenders and descenders and restoring some of the consistency of stress found in the Venetian romans. He eliminated much of their variation in serif structure, instead relying largely on compact, triangular serifs like those found in Griffo’s roman. There are hints of cupping, however, in some of Garamond’s foot serifs, and one stem is flared, faint echoes of the features of the original.

While optically similar to the Colines and Estienne romans of the early 1530s, internally, Claude Garamond’s *gros romain* is a tamer creature. It is less lively and more stately, and thus resembles the *gros canon* Garamond cut in the 1550s, a roman which also is more reserved than the original. With regard to the Aldine hypothesis, Garamond’s *gros romain* may owe more to the example of the Aldine roman than did Colines’s: his compact triangular top serifs, for example, are strongly reminiscent of Griffo’s. But his font’s relation to the earlier Paris romans also bears an interesting parallel to the relation between the two Venetian romans. As was Griffo’s in relation to Jenson’s lighter and more rhythmical roman, Garamond’s roman is more consistent, more solemn, and more “mechanical” than Colines’s, and the interval of time that divided the cutting of the two sets of romans is virtually the same.

54 Garamond’s *gros romain* is shown in *Type Specimen Facsimiles II* (London: The Bodley Head, 1972) as facsimile 18, nos. 15 and 16, in two specimens annotated by Guillaume Le Bé. As used by Michel Vascosan (Figure 6) and other Paris printers, the *gros romain* often was more loosely fitted.

Figure 7
Comparison of 4x enlargements of (top to bottom):
Jenson roman,
1495 Griffo roman,
1499 Griffo roman,
Colines roman,
Estienne roman, and
Garamond roman.

triumphum egeris
nos fatis diligenter
e angonia iacendo
tari possunt, aut in
à permultis excussa
moyēs de tranqui

Revisiting the Aldine Hypothesis

Just as the contention that Garamond based his roman on that of Jenson will not stand scrutiny, neither does the notion that he “had before him the ‘Poliphilus.’” The light weight and silvery color of the Paris romans have more in common with Jenson’s roman than with Griffo’s, and while different in character, there is a liveliness to them that parallels Jenson’s. On the other hand, the structural features of the capitals found in the Paris romans parallel the Aldine roman, and such things as commonality in the configuration of a lowercase character as important as the “e” also suggest a debt to Griffo’s ingenuity. But an analysis of the influences expressed in the Paris romans isn’t complete unless it takes into account punchcutting practices developed in Strasbourg and Basel, and in Paris, too. The Paris romans are more than a blend of Italian styles: they fuse a broader range of styles to create a new sort of model for the roman.

The connoisseurship that led Stanley Morison to grasp the importance of the Aldine roman for later punchcutters is misplaced when imputed in a literal sense to the punchcutters themselves. Rather than suggesting the close copying that is the method of modern revivals, the approach to the romans produced by these punchcutters suggests, instead, the application of a synthesizing intelligence, the exercise of a keen critical sensibility cultivated in the practice of the craft, and a desire for originality in its pursuit.

Despite many differences in their approaches, Jenson, Griffo, Colines, and Garamond together shared a goal in the cutting of their romans, one that was very much bound up with a Renaissance ideal. Relinquishing the rich color and heft of blackletter, they brought to the page a letter that was rounder, lighter, and more buoyant. Clarity is the central virtue of roman: individual letterforms are easily distinguished from each other, as in turn are words, easing a reader’s traffic along lines and through pages of poetry or prose.

The romans discussed in this essay brought different concerns to the concept of clarity. They were cut at intervals of about twenty-five years, spanning the entire first century of printing and the experiment with typographic letterforms it inspired. Jenson’s roman resides close to calligraphy, and carries with it some of the lightness and grace of the pen. Griffo’s roman evinces steel, and is more overtly responsive to the materials and techniques of punchcutting. Colines’s romans fuse the features of several typographic styles, and established an international idiom for the letterform. Garamond’s polished the result, fully regularizing a roman that had a distinctly typographical identity.

Many have argued that the “incunabula” period or infancy of printing is better understood as comprising one-hundred years, rather than the fewer than fifty that demarcate the period in the older literature. Viewed from this perspective, there is a larger evolutionary process at work in the development of these romans. It is one that connects each of them to the others, and that fully accounts for the movements from a fundamentally calligraphic to an inherently typographic model for the roman, and from regional to international expressions of its form.