

Calligraphy and Letterpress in Design Education

Lance Hidy

WHEN proto-graphic designers invented writing five thousand years ago, they provided a cornerstone of civilization. Scribes were the first to record history, and preserve knowledge. After the appearance of letterpress printing in 1455, leading typographers continued to rise from the ranks of scribes. This phenomenon persisted even through the twentieth century, as classically-trained calligraphers and letter cutters—Jan Tschichold, Paul Renner, Eric Gill, William A. Dwiggins, Rudolf Koch, Georg Trump, Adrian Frutiger, Hermann Zapf, Sumner Stone, and Matthew Carter—blazed new trails in typography.

Until recent decades, professional schools of art and design continued to teach lettering with traditional tools. Both the United Kingdom and the United States fostered movements to bring italic handwriting into elementary schools. Any child who learns to write italics with an edged pen is “civilized” in the truest sense of the word, being linked to a continuous graphic design tradition that goes back to the scribes of the Pharaohs whose pens and papyrus were made beside the Nile River marshes. Calligraphy teachers such as Lloyd Reynolds, Alfred Fairbank, Charlotte Stone, Rosemary Sassoon, and Paul Standard have observed the energizing transformation in young children as they become conscious of participating in a craft that is both ancient and sacred.

For graphic designers there are practical benefits from learning calligraphy too. Jan Tschichold, considered among the greatest of modern typographers, said near the end of his career,

I feel there is no better training for a typographer than practical calligraphy. All my knowledge of letter-spacing and leading is due to my calligraphy, and for this reason I regret very much that calligraphy is so little studied in our time. . . . Anyone who has ever done lettering by hand knows much more about the qualities of right spacing than a mere compositor who only hears certain rules without understanding them.¹

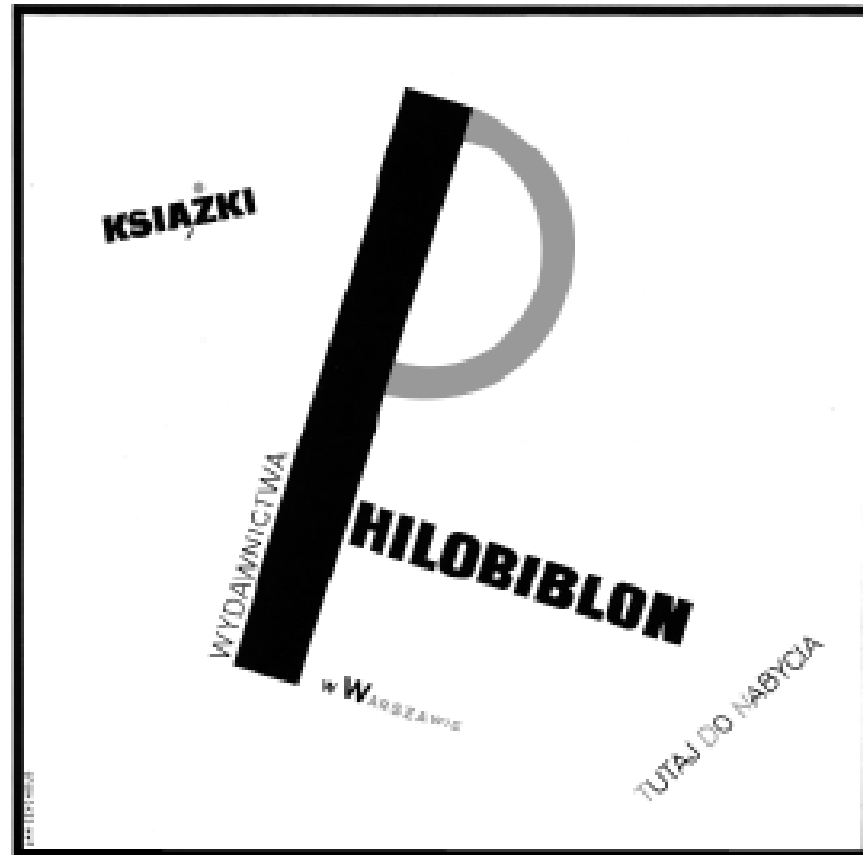
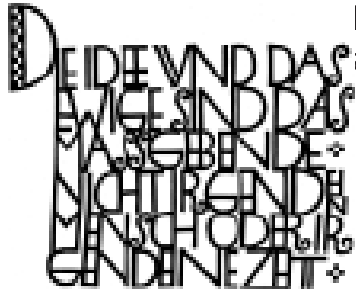
Tschichold’s early design education came from Edward Johnston’s *Writing & Illuminating & Lettering*. Published in 1906 and still in print, the book

Lance Hidy (b. 1946) is a designer of books, posters, and postage stamps. He learned italic handwriting from a student of Lloyd Reynolds at the age of twelve, and purchased *Writing & Illuminating & Lettering* when he was twenty-six. Hidy’s titling typeface family Penumbra, derived from his poster lettering, was issued by Adobe in 1994. He lives in Merrimac, Mass., near Northern Essex Community College where he teaches half-time. Previously he has taught graphic design, illustration, and design history at Boston University, University of Kansas, and Massachusetts College of Art.

This article is based upon a lecture at the Museum of Printing, North Andover, Mass., November 2005, and is also published in the <date?> issue of the *Journal of the Edward Johnston Foundation*.



1. Letter to Alfred Fairbank, 1949, quoted in Ruari McLean, *Jan Tschichold: Typographer* (Boston: Godine, 1975), p. 149



is a three-in-one manual of practical instruction, theory, and history. It is claimed by some to be unmatched by any handbook ever written.

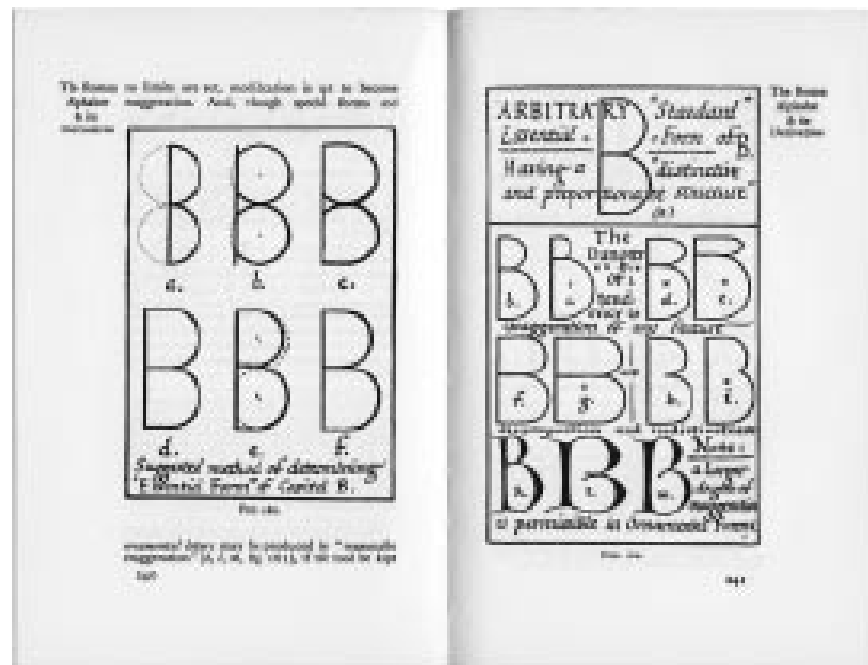
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Four years later, in 1910, there appeared a German translation by Anna Simons, a young German designer. The book added to the work of Peter Behrens, Rudolf von Larisch, and others to spark the revolution in German design that would spread around the world. Among numerous German and Swiss typographers who learned from *Writing & Illuminating, & Lettering* were Paul Renner, Rudolf Koch, Adrian Frutiger, and Hermann Zapf.

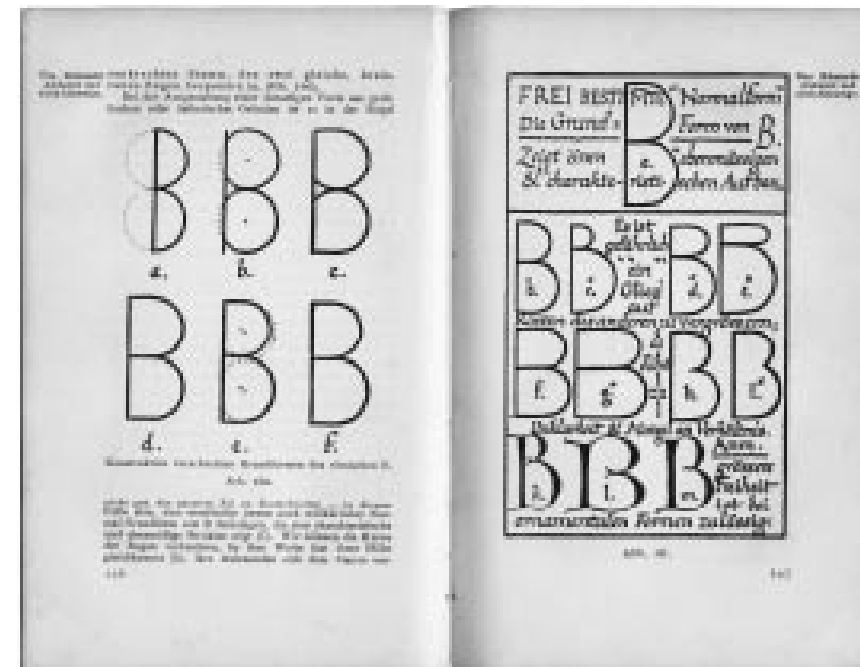
Although Johnston was transmitting an historic European scribal tradition, his theory of Essential Form of letters (*Grundform* in German) provided a modernist key that helped unlock the nationalist black-letter tradition that confined German book designers. Cultural pride prevented borrowing the roman letters of their Italian, French, Dutch, and English neighbors. However, the pure geometry of Johnston's letter skeletons was untainted by associations with rival cultures.

Many would try their hand at putting Johnston's Essential Form into a typeface, but none with greater success than Paul Renner, German calligrapher, book designer, and friend of Anna Simons. His typeface Futura (1927) was an immediate sensation, and continues to be widely used eighty years later. A chapter on stone inscriptions in Johnston's handbook was written by his young colleague Eric Gill, whose Gill Sans (1928–29) rivals Futura for pure essence of letter form—but its lowercase incorporates some Humanist shapes that are more readable for longer texts.

It is instructive to consider a paradox of modernism—that Futura, the ideal letter form of the machine age, with its illusion of compass and straight-edge engineering, was created by a master of calligraphy. Renner wasn't the



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Typografie als Kunst

DAS BUCHGEWERBE KULTUR UND PRESSE MEISTERKURSUS

ABOVE: Paul Renner's calligraphy; and a specimen of his Futura type.

BELOW: Rudolf Koch's calligraphy cut in paper for *Die Schriftgiesserei im Schattenbild (The Typefoundry in Silhouette)*, 1918, reprinted 1936; and specimens of Koch's typefaces Kabel and Prisma.

Die Schrift

KABEL BY RUDOLF KOCH Gutenberg Halbein Dürer Bach HEXAVALENT

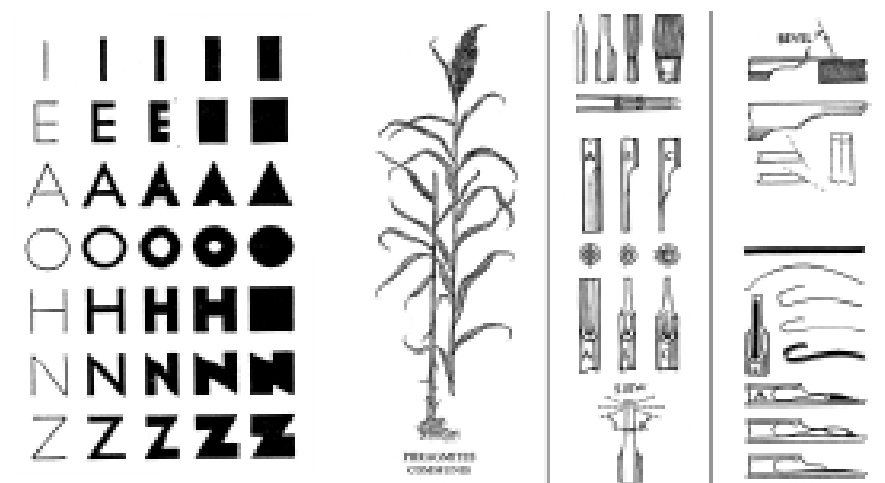


ly one. Other classically trained calligraphers and lettering masters have been among the most productive and versatile designers of typefaces, both modern and traditional. The sans serif typefaces Univers and Frutiger were made by Adrian Frutiger; Kabel by Rudolf Koch; Metro by William Addison Dwiggins; Syntax by Hans Edward Meier; Myriad by Carol Twombly and Robert Slimbach; Stone Sans by Sumner Stone; and Verdana by Matthew Carter—to name only a few.

Virtually all of the greatest type designers and typographers, going back to Gutenberg, Schöffer, and Jenson were trained in one of the two letter craft traditions, either calligraphy or cutting letters in metal. Such historical evidence gives credence to Tschichold's belief in hand work for mastering spacing—the essence of graphic design—along with the accompanying understanding of letter form.

My wife, Cindia Sanford, was a painting and print making major at Rhode Island School of Design (RISD) when John Howard Benson's and Arthur Graham Carey's *The Elements of Lettering* (1940) was still being used to teach calligraphy in the freshmen foundation program. She remembers that calligraphy was a good complement to the drawing classes. In drawing, they were being taught to design the entire sheet, and not just put a figure in the middle—but they were not initially taught the craft of using drawing tools. That came in calligraphy, where the nuances of the shape of the pen nib, the amount of ink, and pressure and speed all took on great importance—as did the shapes and edges, and their aggregate texture. The considerations of designing a page of script, with its counter-spaces, letter-spaces, word-spaces, line-spaces, and margins, all interacted with and were informed by what was being taught in the drawing studio. With that double background in calligraphy and drawing, and no specific training in graphic design, Cindia was able to make a good living as a graphic designer for several years while she worked to launch her career as a landscape painter. That concern with stroke shape, or gesture, continues to be a feature in her painting today.

Calligraphy in art school foundation courses does not imply that students are expected to become calligraphers—any more than life drawing



Johnston's "Essential Form" in Type

To create modern, geometric alphabets, these classical craftsmen were able to put aside the stylistic attributes of their familiar tools: pen, brush, burin, knife, and chisel. Between 1916 and 1928 they pursued instead Edward Johnston's "Essential Form."



Below are digital types produced in the U.S. between 1987 and 2004 by four masters of hand-lettering and design history: Sumner Stone, Matthew Carter, Robert Slimbach, and Carol Twombly. Once considered unreadable by De Vinne and Updike, sans serifs are becoming familiar. Their low-stroke contrast is an advantage on digital displays, and for people with eyesight compromised by the common symptoms of astigmatism and aging. It is reasonable to imagine that if the trend continues, sans serifs will eventually become the standard for long texts.



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is intended to produce only figurative artists. Both disciplines, calligraphy and life drawing, develop a heightened understanding of the interaction of tool and paper, and provide practice with spacing, composition, and form. Nothing sharpens discernment, as Tschichold learned, better than a pen charged with indelible india ink writing on a page that has occupied hours of work.

German calligrapher George Salter, a refugee from Hitler's Germany, found a haven among the faculty of the Cooper Union school of art in New York. Milton Glaser tells about studying there with Salter:

I was privileged to be a student of George Salter at the Cooper Union during the late 1940s. At that time, the school's commitment to the study of calligraphy and the book arts, including typography, was the centerpiece of its commitment to the field of graphic design. Calligraphy's significant educational role was propelled by an outstanding group of teachers, with George himself, Paul Standard, Leo Manso, and Phil Grushkin (his former student). Their devotion to the practice of calligraphy and good craftsmanship was never less than inspiring.

Most of us interested in graphic design studied calligraphy, letter forms, and typography for three years. One could suggest that calligraphic studies develop skills parallel to those of drawing for those interested in practicing the visual arts. They both require the replication of a form held in mind into a material object. Like playing a musical instrument, repetition and practice are essential to understand form and to produce a desired result. The neurological path from brain to hand is cleared and strengthened in this primitive and uncompromised way. Since the advent of the computer, both drawing and calligraphy have lost their central educational function, being replaced by the vocational imperatives that the new technology demands. There are signs of change in this attitude among the good design schools, although a return to studying calligraphy as a basic educational tool seems quite unlikely.¹

Carl Zahn, leading book-designer and for forty-one years art director of the Museum of Fine Arts in Boston, had an experience similar to Glaser's:

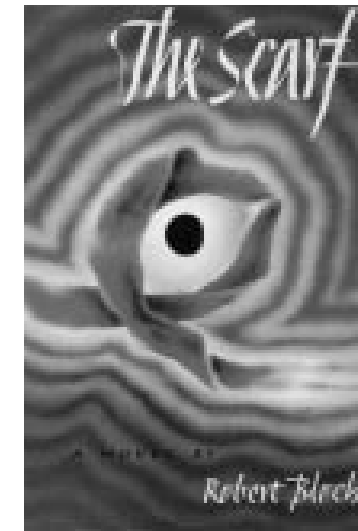
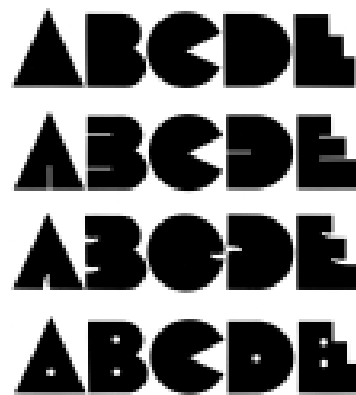
In 1950 at Cooper Union . . . I had the great good fortune to have Philip Grushkin, art director at Harry N. Abrams, as my lettering teacher. It was the first time I had studied letter forms: he had us buy Edward Johnston's *Writing & Lettering, & Illuminating*, and gave us exercises in composing manuscripts with a turkey quill pen. I loved it; and he was encouraging. That's where it really began for me. I left after one semester, however, since I had acquired a job at the Institute of Contemporary Art in Boston, but I took the pens with me.

There was little opportunity to use calligraphy in the design assignments for the ICA, but my eyes were keen for well-shaped typefaces. However, after I moved to the Museum of Fine Arts, the need arose to use hand-lettering for catalogues and exhibition promotion. I constructed it myself, as with the Matisse posters in 1964 and the catalogues for our Yousuf Karsh exhibition in 1969. If I couldn't find the appropriate typeface to represent

1. Glaser, "Foreword," in Thomas S. Hansen, *Classic Book Jackets: The Design Legacy of George Salter* (New York: Princeton Architectural Press, 2005), p. 7.



Milton Glaser



the exhibition, I experimented with the letter forms to create our own representative 'logo.'¹

Since most art schools are now offering courses in graphic design history, those students who have experience with calligraphy have a much better understanding of the subject, since graphic design *was* calligraphy for its first 4,500 years. If the student knows how to use the edged pen, or the Chinese brush, or the mallet and chisel, he becomes linked with his predecessors through the millennia in a way that cannot be achieved by merely reading and looking.

1. E-mail to the author, August 2006.

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Hands-on experience with letterpress printing has helped students understand that other important tradition in graphic design history. The introduction of letterpress studios to liberal arts colleges (as distinguished from technical schools) began with typographer and printer Carl Purington Rollins (1880–1960), an influential leader of America's Arts and Crafts movement. Rollins established the first bibliographic press in a university—in Yale's Sterling Memorial Library, in 1924, the first of many undergraduate presses to appear in dormitory basements across the Yale campus. Two

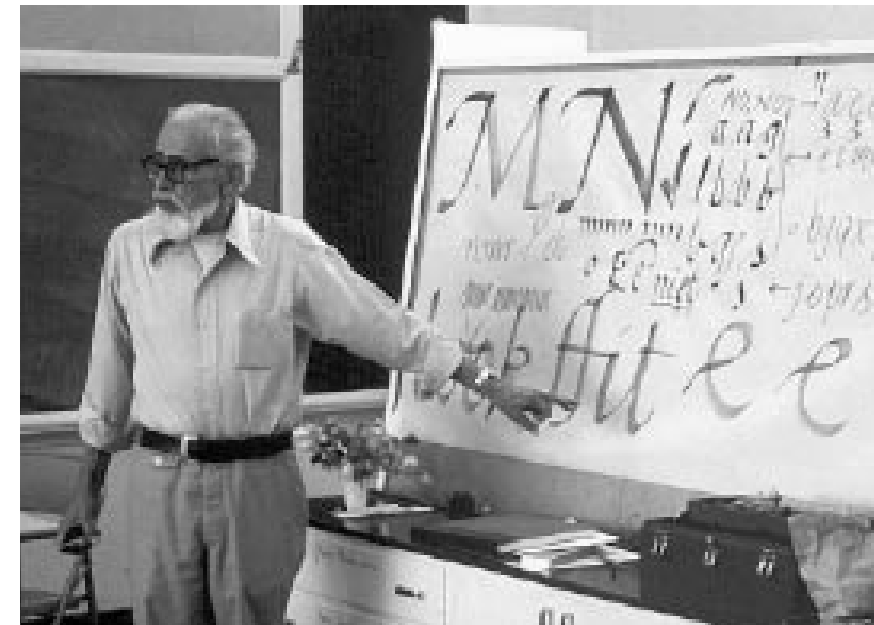


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years later another laboratory press appeared in the journalism school at the University of Oregon. Two men who became famous teachers of graphic designers were at the University of Oregon at that time—Ray Nash (1905–1982) and Lloyd Reynolds (1902–1978).

The similarity of the backgrounds of Nash and Reynolds is curious. Born three years apart, both grew up on struggling ranches in the Pacific Northwest; while in high school in Portland, both held jobs in printing and publishing; Reynolds earned a masters degree in literature at the University of

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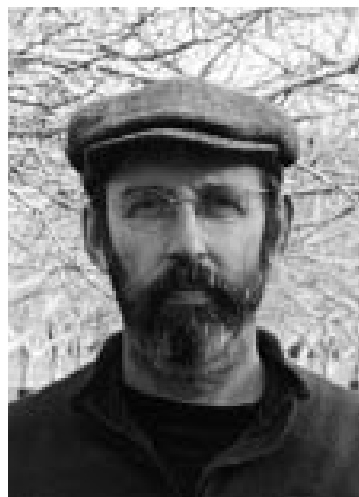
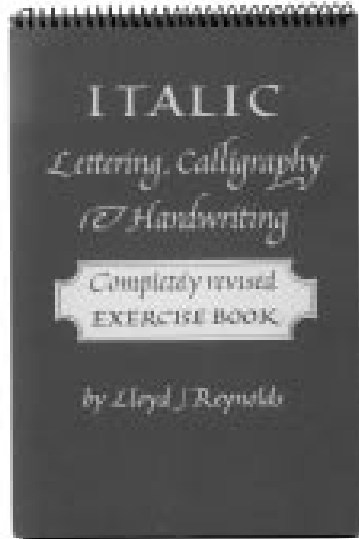
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Oregon in 1929, the year after Nash received his degree in journalism from the same school. Years later their campus classrooms were surprisingly similar, featuring printing presses, and displays of calligraphy—but I have not found any evidence that the two men ever met.

While highly competent, neither was a first-rate designer—but they trained students who were. Both men placed great emphasis on learning design history: Reynolds, a professor of English at Reed College in Portland, Oregon, emphasized the history and practice of calligraphy (Johnston was his primary influence, and he had an extensive correspondence with Alfred Fairbank that is preserved at Reed); and Nash, who taught some calligraphy and wrote books on the history of American penmanship, placed more emphasis in his Dartmouth classes on the letterpress tradition, as did Rollins at Yale.

The historical, craft-based approach to design education at Reed and Dartmouth yielded alumni of which any design school would be proud. Many in New England know the names of Nash's outstanding protégés: Roderrick Stinehour, David Godine, Stephen Harvard, Sinclair Hitchings, Alvin Eisenman, Jim Hamilton, Gobin Stair, Volney Crosswell, and Ric Grefé. These men have been leaders in the fields of design, education, calligraphy, printing, publishing, and curating—and Grefé is the director today of the American Institute of Graphic Art. Nash's son John, now of London, is a prominent calligrapher and letter-carver.

Reynolds's students have included Chuck Bigelow, type designer, former RISD teacher, and MacArthur Fellow; Michael McPherson of the prominent Boston design firm Corey, McPherson and Nash; Tim Girvin of the Tim Girvin Design Group in Seattle; Sumner Stone, type designer and former director of type development at Adobe Systems (who also studied with Hermann Zapf at Hallmark); and this author. Robert Palladino, a protégé of Edward Catich, continued the workshops at Reed after the professor's death. Steve Jobs, founder of Apple Computer, told of his encounter, via Palladino, with the Reynolds tradition:



BALANCE
CLARITY
GRACE
2002

Reed College at that time offered perhaps the best calligraphy instruction in the country. Throughout the campus every poster, every label on every drawer, was beautifully hand calligraphed. Because I had dropped out and didn't have to take the normal classes, I decided to take a calligraphy class to learn how to do this. I learned about serif and sans serif typefaces, about varying the amount of space between different letter combinations, about what makes great typography great. It was beautiful, historical, artistically subtle in a way that science can't capture, and I found it fascinating.

None of this had even a hope of any practical application in my life. But ten years later, when we were designing the first Macintosh computer, it all came back to me. And we designed it all into the Mac. It was the first computer with beautiful typography. If I had never dropped in on that single course in college, the Mac would have never had multiple typefaces of proportionally spaced fonts. And since Windows just copied the Mac, it's likely that no personal computer would have them.¹

Meanwhile, some of us were working with letterpress too. During my undergraduate years at Yale, 1965–68, I printed in the Jonathan Edwards College Press, one of those offices inspired by Rollins, where students printed stationery, invitations, and posters to help pay tuition. I used the same Chandler and Price platen press on which Leonard Baskin printed his first Gehenna Press book in 1942. Sumner Stone had bought letterpress equip-

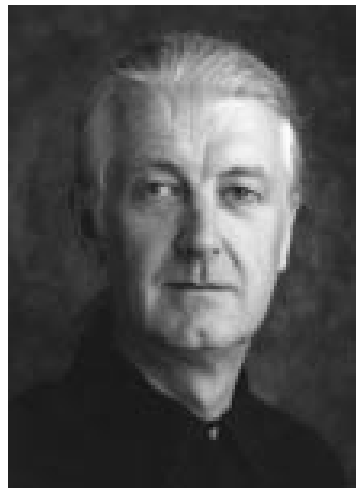
1. Commencement address, Stanford University, June 2005, quoted in "You've Got to Find What You Love' Jobs Says," Stanford Report, 14 June 2005 (<<http://news-service.stanford.edu/news/2005/june15/jobs-061505.html>>).



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ment for his studio, and Stephen Harvard, after doing research at the Plantin-Moretus museum of printing in Antwerp, became a book-designer at the Stinehour Press where books were still being printed from metal type. Alvin Eisenman, as director of graduate studies in graphic design at the Yale School of Art, kept the spirit of Nash and Rollins alive by bringing letterpress equipment into Yale's School of Art, and hiring calligrapher John McCrillis and bookbinder Polly Lada-Mocarsky to teach book arts in the graduate design program.

When John Warnock and Charles Geschke hired Sumner Stone in 1984 to head Adobe's type development program, they were probably not aware that he was a product of the same Reed College calligraphic culture that inspired Steve Jobs. Among the type-designers Stone assembled at Adobe were Carol Twombly, who had studied at Rhode Island School of Design with Reynolds alumni Charles Bigelow and Kris Holmes; calligrapher Robert Slimbach; and Masumi Abe who had studied Japanese calligraphy with his father. Fred Brady, Stone's project manager, had a degree in industrial design from Massachusetts College of Art. Calligraphers Linnea Lundquist (a Zapf student and former employee of lettering artist and type-designer George Abrams) and Jocelyn Bergen joined the Adobe type team around the time of Stone's departure at the end of 1989.



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In 1987 Stone assembled an advisory board, composed of people with backgrounds in calligraphy and letterpress typography: Jack Stauffacher, Roger Black (magazine and newspaper designer), myself, and the two Ray Nash alums, Steve Harvard and Alvin Eisenman. Trained in design history, calligraphy and metal typography, Stone and his colleagues guided the development of the most acclaimed digital type foundry of the new era. Seventeen years after Stone's departure, Robert Slimbach and David Lemon are still there, preserving the legacy of excellence in Adobe's type department, and supervising the transition of the type library to OpenType, the new universal format.

Adobe's closest competition at the time was Bitstream, in Cambridge, Massachusetts. Matthew Carter, its design director, learned italic handwriting as a youth, and was given Johnston's *Writing & Illuminating & Lettering* by his father, type historian Harry Carter. Matthew preferred drawing letters over calligraphy, making his living as a free-lance lettering artist in London from 1958 to 1963. His interest in the new international style led to lettering projects with Alan Fletcher and Colin Forbes, including Heathrow Airport signage based on Akzidenz Grotesk in the months before Helvetica burst onto the British design scene. Carter also learned to cut letters in steel punches under the guidance of P. H. Rädtsch at the printer and type-

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founder Joh. Enschede en Zonen in Haarlem, sometimes interrupted by journeys to the Plantin-Moretus Museum, Antwerp, to help his father sort and assign design attributions to the historic collection of punches there. When Carter's career led him to Bitstream he assembled a team of men and women who were versed in design history, calligraphy, and letterpress typography—similar to what Sumner Stone was doing at rival Adobe. Carter was assisted by Cherie Cone, a co-founder of Bitstream and manager of its design department, who studied calligraphy under Arnold Bank. The Bitstream design team included calligraphy and lettering experts Rich Lipton, Jacqueline Sakwa, David Berlow, Dennis Pasternak, George Ryan, Steve and Sue Zafarana, and Chuck Rowe. As modernist typography of the twenties had been led by classically trained calligraphers and designers, so was the digital revolution of the 1980s.

Today, art schools have been pressured to make room in their curricula for computers. Calligraphy and lettering courses are often replaced with animation, video-editing (including sound), and web-design. A few schools have managed, fortunately, to keep their letterpress equipment active. But is letterpress without calligraphy sufficient when educating graphic designers? And for those schools that still offer electives in calligraphy, is that enough, or should it be restored to the freshman foundation program?

As Stanley Morison reminded us, "Typography is properly a department of calligraphy."¹ That typography rarely thrives without calligraphers was evident at the Bauhaus, where Herbert Bayer taught typography in a letterpress studio. His lack of training with pen and ink prevented his department from keeping up with the industrial design and architecture programs there. Meanwhile, calligraphers Renner, Tschichold, and Georg Trump brought Bauhaus theories to the Munich Meisterschule. Expanding upon Bayer's work, they helped train a new generation of typographers, linking their classical backgrounds with the new typography.

The weight of five thousand years of uninterrupted tradition, fundamental to civilization, is not easily displaced by electronic mouse and keyboard. As the digital media mature, design school faculties may well decide that the hand-and-eye training of calligraphy is just as important as it ever was.

1. [See Cover] *On Typefaces; Examples of the use of type for the printing of books*: with an introductory essay and notes by Stanley Morison. Published jointly by the Medici Society of Seven Grafton Street London W. and the Fleuron Westminster, 1923. Page vii.