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Review and summaries: *The History of Typographic Writing — The 20th century Volume 1, from 1900 to 1950*

Charles Bigelow

Histoire de l'Écriture Typographique — le XXième siècle; tome I/II, de 1900 à 1950. Jacques André, editorial direction. Atelier Perrousseaux, Gap, France, 2016, `http://tinyurl.com/ja-xxieme`. The book is in French. Volume 2 covers the years 1950 to 2000, to be reviewed later.
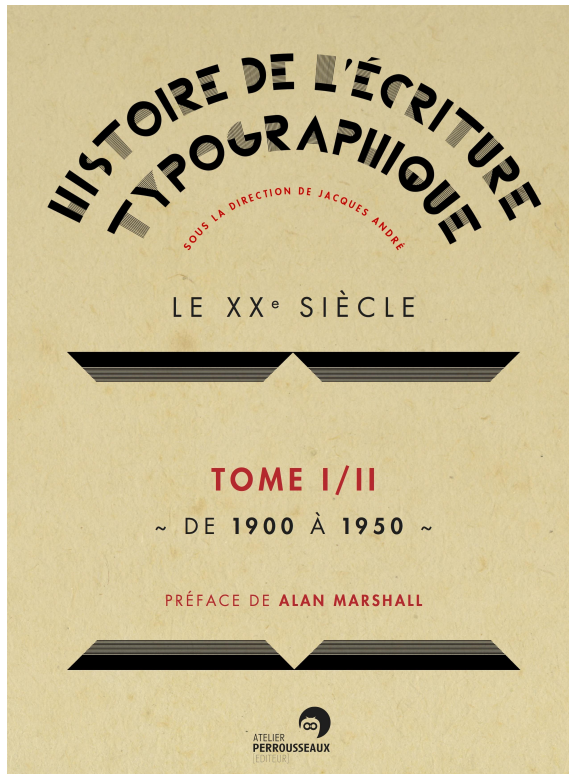
The 20th century saw the three most transformative innovations in typographic technology after Gutenberg's invention of alphabetic movable type five centuries earlier. Each innovation by turns increased speed, reduced cost, and increased efficiency of text composition. First came keyboard-driven hot-metal composing machines like Linotype and Monotype; invented in the late 19th century, these achieved commercial dominance in the early decades of the 20th century, supplanting most hand-set type. Next came phototype — electro-optical photographic composition; invented in the 1940s, phototype replaced most hot-metal typesetting by the 1970s. Lastly came digital typography; invented in the 1960s, it replaced most metal and photo typesetting by the year 2000. Typesetting occurs prior to print, so these technological changes went mostly unnoticed by readers. By the end of the millennium, however, digital typogra-

phy had begun to supplant print itself, because text display and reading increasingly shifted from paper to computer screen, a phenomenon now noticed by nearly all readers and publishers.

In the 20th century, typography was also transformed by cultural innovations that were strikingly visible to readers. In a profusion of new styles, movements, and polemics, a plethora of avowedly revolutionary "-isms" challenged traditional tenets of typography in zealous efforts to reformulate, abandon, or replace long-held principles of typographic organization and expression.

Some of these cultural movements hearkened back to an idealized typographic past, while others pointed to an idealized future. Our typography today is a mix of such memories versus desires: old and new, traditional and modern, potential and practical, obsolete and avant-garde.

There have been relatively few books on typography that provide deep analysis of its cultural transformations, knowledgeable explanations of its technological progression, and copious illustrations to accompany both aspects.

That is why this book is a milestone in the scholarship and appreciation of modern typography. Totaling 522 well-illustrated pages in two volumes of essays by a group of typographic experts under the editorial direction of Jacques André [1], the books provide an impressive perspective on the typographic art, culture and technology of the past century. [2]

Instead of an overview of the whole book, this review of the first volume gives partial summaries and comments on each of the chapters, This is done for two reasons. First, the book is in French, so the short, mini-summaries may help English-language readers get some idea of the contents and significance of those various chapters that may be of particular interest. Second, because each author writes with different expertise, perspective, and literary style, these mini-summaries may give some hint of the variety of styles and sensibilities in the essays. The book deserves an English edition, but it is hoped that these notes may at least point to what is contained therein.

Here are the chapters of Volume 1.

Alan Marshall: Preface (*Préface*)
The 20th century was one of the most eventful periods in the history of typography, influenced by two major changes, the mechanization of typesetting and the diversification of the use of print. The former advanced typography for *reading*, while the latter transformed typography for *seeing*. The selection and production of typefaces for mechanized composition concentrated mainly on traditional type forms that

are nearly subliminal in extended texts, but for promotion of goods and dissemination of publicity in the increasingly mass-market 20th century, super-liminal type styles were created to arrest, shock, intrigue, seduce, and persuade readers of short commercial messages. As technology and usage changed, traditional methods did not entirely disappear; hand-set display types, for example, were often used in conjunction with mechanized composition of longer texts.

1. Matthieu Cortat: The flowering of the Modern (*La floraison de la modernité*)

From beginnings in the late 19th century English Arts & Crafts movement and French lithographic poster lettering, new typographic styles emerged, especially the flowing, floral, and youthful styles gathered under the banner of Art Nouveau, which exercised international influence on lettering and typography, often in contrast to traditional typographies of France and Germany. The botanical style of Art Nouveau is a recurrent theme in this essay, which ends with an olfactory metaphor: that when the avant-garde moved on to other styles, Art Nouveau typography faded into obsolescence, leaving only occasional whiffs of a flowery perfume in its wake. (This reviewer recommends a whiff of Jacques Guerlain's "Après l'Ondée" (After the Rain Shower), the quintessential Art Nouveau perfume, composed in 1906 but still in production and regarded as one of the greatest fragrances of all time.)

2. Roxanne Jubert: Signs of the avant-garde: the alphabet between construction, system, art and utopia (*Signes des avant-garde: l'alphabet entre construction, système, art et utopie*)

This lucid yet congenial exposition, reminiscent of the essays of Roland Barthes, analyses the explosion of diverse avant-garde movements in Europe, including Futurism, De Stijl, Dadaism, Constructivism, Bauhaus, New Typography, and their effects on typographic forms and organizations. The structuralist approach of the essay effectively elucidates implicit (and sometimes explicit) aesthetic and semiological philosophies of the avant-gardists with their arrestingly visual modularization and segmentation of typographic images, their construction of experimental alphabets, and their integration of typography, geometry, and photography. Even the best English discussions of avant-garde typography are rarely this interesting.

3. Roxanne Jubert: The Art Deco Letter: variety, stylization, play, and contrast (*La lettre Art Déco: variété, stylisation, jeu, contraste*)

Art Deco was (and still is) an aesthetic family that encompassed several different but somehow related visual styles. Understanding Art Deco visual relationships is a bit like grappling with Wittgenstein's remarks on family resemblance — is there a single core element or a set of overlapping similarities? Whatever its visual core, Art Deco influenced poster art, architecture, signage, advertising, and typography and characterized the then-modern era of the 1920s and 1930s, between the two great wars. Despite diversity within the style, multiple connections can be traced among its apparently disparate forms. Of particular typographic note are Art Deco typefaces by designers who are better known today for more sober creations, including Morris Fuller Benton, Rudolf Koch, Imre Reiner, Robert Middleton, and Dick Dooijes. There are also notable designs by artists firmly within the Art Deco genre such as A. M. Cassandre. Unlike the Art Nouveau types, many forms of Art Deco continue to be used today.

Jacques André: First Interlude: The sociology and revival of a type style: stencil (*Pause: Sociologie et renouveau d'un caractère: les pochoirs*)

This absorbing, often amusing, and copiously illustrated exposition proceeds from a hand silhouette in palaeolithic cave painting to the analytic logic of form and counter-form in letter shapes; from spray-painted graffiti to labels on gunny sacks and letters on wine barrels; from slogans on walls to road markers; from signs cut in metal to stencil-like typefaces by Auriol, Jacno, and other 20th century type designers.

4. Nelly Gable and Christian Paput: Perennity of punches and matrices (*Pérennité des poinçons et matrices*)

A clear and beautifully illustrated treatise on type punch-cutting, emphasizing the tools and techniques still used today at the French Imprimerie Nationale. For five and a half centuries [3], punch-cutting has been at the core of every era of typography, practiced by a tiny group of skilled artists whose exquisitely precise work has rarely received public recognition, first because it was necessarily executed in miniature (like the 10 point type you are reading now) and was usually anonymous (apart from in-group knowledge of a few typographic cognoscenti) because type was made in service of the arts of literature and knowledge. Stanley Morison wrote that typography is only accidentally aesthetic, "for the enjoyment of patterns is rarely the reader's chief aim." This applies as well to the jewel-like intricacy of finished punches. In this chapter, the methods, tools, and techniques of cutting and proofing punches, and of striking and

justifying matrices, are precisely described and explained, coupled with clear photographs by Nelly Gable and Daniel Pype. Among its side-revelations are the names of the principal French punch-cutters who worked at the Imprimerie Nationale, Deberny & Peignot, and other organizations in the 20th century. Thus, artists who worked mostly in obscurity are rescued to some extent from anonymity. A photo of punches bearing the punch-cutters' own identifying stamps furthers the cause. Little has been published on punch-cutting, and even less is still in print, so this excellent chapter especially merits an English translation and republication, perhaps as an offprint. [4]

5. Christian Laucou: Technical innovations from 1900 to 1945 (*Les innovations techniques, de 1900 à 1945*)

In the Internet era, we may believe that electronic innovation travels at a faster speed than ever before, but this essay demonstrates the dizzying pace of mechanical innovation in typesetting at the start of the 20th century. Typography was, after all, the dominant information technology of that era. Even the lexicon of names of typesetting inventions is enough to write rhyming poetry to accompany the clatter of machines like Barotype, Diotype, Francotype, Intertype, Linotype, Monotype, Nebitype, Rototype, Stringertype, Teletype, Typar, Typograph, Typomeca, Typostereotype and more. Engineering drawings, particularly of matrices and mechanisms, illustrate the ingenuity devoted to turning keystrokes into print, a process that continued to be reinvented throughout the century in other technologies, even as metal-based composition approached near-extinction.

Jacques André: Second Interlude: Louis Jou, an idiosyncratic brilliance
(*Louis Jou, un marginal génial*)

An appreciation of the typographic work of Louis Jou, an engraver, typographer, type designer and fine book printer-publisher whose work combined the richness, variety, and elegance of Renaissance typography with the exuberance of Art Nouveau, enhanced by his own inventiveness in ornamental lettering and layout. A friend of Apollinaire, Dufy, Cocteau, and other literary and artistic luminaries of his time, Jou, who was born in 1881 and died in 1968, "came too late to achieve the glory of his English equivalent, William Morris but too early to use digital type, which would have enabled him to play more with fonts and compose his books with the perfectionism of an aesthete."

6. Manuel Sesma: Return to historical and neo-historical typefaces (*Retour aux caractères historiques et néo-historiques*)

Revival and practice of past letterforms is traditional in Asian calligraphy. In the Italian Renaissance, Humanist handwriting revived Carolingian court handwriting of six centuries earlier and became the model for the first roman and italic types. Arts and Crafts printers revived older types using photographic enlargements from books and hand punch-cutting. Augmented by pantographic punch-engraving, revivals achieved commercial success in the 20th century, especially with revivals of types cut by Claude Garamond in the 16th century (or derivatives cut by Jean Jannon in the 17th century but misidentified as those of Garamond). These revivals were marketed under the names "Garamond," "Garamont," "Granjon," "Estienne," "Sabon," and others, causing this essay to call the phenomenon "garamonomanie" (perhaps "Garamonomania" in English). Questions about whose types were actually revived as Garamond's resulted in intriguing typographic scholarship by Jean Paillard in 1914 and Beatrice Warde (writing as Paul Beaujon) in 1926. [5]

The Peignot foundry types "Cochin" and "Nicolas Cochin" were based on elegant lettering by 18th century engravers Charles-Nicolas Cochin and son. The Peignot Cochin types became fashionably popular in France and were imitated by foundries elsewhere.

In the U.S., American Type Founders (ATF) produced successful revivals by designer Morris Fuller Benton and printer-scholar Henry Lewis Bullen, including Bodoni, Jenson (called Cloister), (Fry's) Baskerville, Caslon, and the Garamond that ignited Garamonomania. Frederic W. Goudy often took Renaissance models as inspiration but imbued them with his own artistic sensibility. Goudy Old Style from ATF, with additional versions by M. F. Benton, has remained popular through every major change in typesetting technology. Goudy also drew "Garamont" for American Monotype.

Revivals were also produced by the Bauer and Stempel foundries in Germany and Linotype in England, Germany, and the U.S. In mechanical composition, the best known series of revivals came from the English Monotype corporation. Under the direction of Frank Hinman Pierpont and with the advisement of Stanley Morison, Monotype revived types by Jenson, Aldus, Arrighi, Garamond, Van Dijck, Fournier, Baskerville, Bell, Bodoni, and others, and also produced original faces by designers with classical affinities: Perpetua by Eric Gill, Romulus by Jan van Krimpen, and Dante by Giovanni Mardersteig.

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Though waxing and waning at times, type revivals continued through the rest of the 20th century.

7. Manuel Sesma: Lead again
(*Encore le plomb*)
As the European typographic industry strove to recover after World War II, an exuberant flowering of imaginative typefaces emerged from French designers and typefoundries with an inventive sense of graphic style termed "La Graphie Latine" ("Latin Typography"). These spirited French typefaces brimmed with inspiration: Paris, Flash, Île de France and Champs Elysées by Enric Crous-Vidal; Choc, Banco, Mistral, Calypso, and Antique Olive by Roger Excoffon; Jacno by Marcel Jacno; Ondine and Phoebus by Adrian Frutiger. Though revolutionary in style, these faces were produced as lead foundry types. [6] Mistral and Calypso were "tours de force," challenging the constraints of metal type. In the 1950s and 1960s, expressive French designs differed markedly from the sober, grotesque-style sans-serifs at the core of Swiss typography and its allied international modernism that favored grid-based bureaucratic regulation over charismatic expression. But, as a philosophical complement to effervescence in letter design, French writing and thinking on type also featured acutely rational reflections on the logic of typography, as seen in the typeface classification system devised by Maximilien Vox and adopted as a standard by the Association Typographique Internationale as the Vox-ATypI system, and in the numeric naming system for typeface weight, width, and posture devised by Adrian Frutiger for his pioneering Univers neo-grotesque produced by the Paris foundry Deberny & Peignot, for both phototype and foundry type.

8. Charles Bigelow: Legibility and typography: research in the first half of the 20th century (*Lisibilité et typographie: les recherches durant la première moitié du xxe siècle*)
By the first decade of the 20th century, literacy rates in France, England, Germany, and America had soared to more than 90 percent due to national expansions of free, public education. The vast increases in literacy fueled the printing and marketing industries but raised concerns about typeface legibility in reading education, ocular health of children, and the physiology and psychology of reading. Émile Javal in France and Edmund Burke Huey in America pioneered reading research. Shortly afterwards in New York, Barbara Roethlein (with font assistance from Morris Fuller Benton) conducted one of the earliest psychological studies comparing type legibility. Elsewhere, Richard L. Pyke in England, Gerrit Willem Ovink in Holland, and Miles Tinker with Donald G. Paterson in Minnesota conducted legibility studies, the last of these continuing through the first half of the century. Although most typeface development followed traditional faith in the trained eye of the designer, legibility research did influence the design of a few popular typefaces for specific purposes. The enduringly popular Century Schoolbook, originally designed by Morris Fuller Benton for a textbook publisher, drew upon Roethlein's earlier research. Linotype's "Legibility Group" was at one time used in more than half of all newspapers in the United States. It included several closely related designs (Ionic No. 3, Excelsior, Opticon, and Corona) that were influenced by Century Schoolbook and unpublished legibility research by Linotype. Not all legibility studies were reliable. R. L. Pyke skeptically remarked, "Four times as many writers have measured legibility as have defined it. Three out of every four writers have been attempting to measure something the exact nature of which they have not paused to examine." [7]

Paul-Marie Grinevald: Third Interlude: Survey of historians of typography
(*Aperçu des historiens de la typographie*)
This is a rare essay in typographic historiography: a history of histories of typography. It includes social histories of printing such as Elizabeth Eisenstein's *The Printing Press as an Agent of Change*, Lucien Febvre & Henri-Jean Martin's *The Coming of the Book*, Marshall McLuhan's *The Gutenberg Galaxy* and *The Medium is the Message*. Recognizing that typography is only the most recent form of writing, the chapter cites Jack Goody's anthropological treatises on writing and society, ancient and modern, in *The Domestication of the Savage Mind* (the title an in-joke on a structuralist treatise by French ethnologist Claude Levi-Strauss) and *The Logic of Writing and the Organization of Society*.

On the forms of letters and typefaces, this survey touches on Euclidean letter constructions by Luca Pacioli, Albrecht Dürer, Geoffrey Tory, and others in the 16th century, on the refined Cartesian geometry of type forms developed circa 1693–1702 by savants Jean-Paul Bignon, Jacques Jaugeon, and Sebastian Truchet, which led to the creation of the Roman du Roi, the French royal typefaces. Valuable essays on type and history, to mention a few of the many cited, include: in the 18th century, Pierre-Simon Fournier's *Manuel Typographique* and the chapter "Caractère" in the Diderot *Encyclopédie*; in the 19th century, Talbot Baines Reed's *A History of the Old English Letter Foundries*; in the 20th century, Daniel Berkeley Updike's *Printing Types: Their History,*

Forms and Use — A study in survivals, Marius Audin's *Histoire de l'Imprimerie par l'Image* and *La Somme Typographique*, Harry Carter's *A View of Early Typography*, Fernand Baudin's *L'Effet Gutenberg*, John Dreyfus' *Into Print*, Alan Marshall's *Du plomb à la lumière*, and other recent works. Preceding volumes from Perrousseaux in the series on *Histoire de l'Écriture: Typographique* must also be mentioned: *De Gutenberg au XVIIe siècle*, by Yves Perrousseaux; *Le XVIIIe siècle* (two volumes), also by Yves Perrousseaux; and *Le XIXe siècle français* by Jacques André and Christian Laucou.

The book ends with an extensive general bibliography as well as bibliographies specific to each chapter, totaling 412 references in all, to works in French, English and German. These are followed by indexes of typefaces, typographers, and typographic topics.

Notes

[1] The general editor, Jacques André is a French computer scientist with an intense interest in typography. He organized the first academic conference on the integration of computer science with typography, "La Manipulation des Documents", in Rennes, France in May, 1983, and organized the later international "Raster Imaging and Digital Typography" (RIDT) conferences. He has published papers on TeX, and readers of *TUGboat* may know his reviews and articles including "Father Truchet, the typographic point, the Romain de Roi, and tilings" (*TUGboat* issue 20:1, 1999) and "The Cassetin project — Towards an inventory of ancient types and the related standardised encoding" (24:3, 2003). Notable are his translations and re-interpretations of selected print works, such as "Petits jeux avec des ornements", a translation into French with digital re-composition of ornamental patterns by Swiss typographer Max Calisch in *Kleines Spiel mit Ornamenten* (Berne, 1965), and an electronic revival of P.-S. Fournier's *Manuel Typographique* (Barbou, 1764). `http://jacques-andre.fr/japublis/`

[2] These two volumes are the latest in a series on "Typographic Writing" from Atelier Perrousseaux, a French publisher of typography books. The series, in several successive volumes, begins with Gutenberg and thence covers the next six centuries. The term "typographic writing" in the title affirms that typography is the latest form of writing in a long history of literacy. All of the books in the series are well worthwhile.

[3] Gutenberg's method of making type in the 1450s remains shrouded in mystery, but the technique of punch and matrix was probably developed and prac-

ticed before 1470, when Nicolas Jenson, a master of the French mint who had studied the infant art of typography in Mainz, gave up minting for printing and opened his shop in Venice.

[4] The chapter's bibliography includes *Counterpunch* by Fred Smeijers, now out of print but an entertaining and informative book that combines the author's efforts to learn punch-cutting, including a history and explanation of the tools and techniques, comparisons of hand work to computer work, the creating of new type designs inspired by models from the golden age of typography, and comments on other topics arising during the author's story. A good short essay, not in the bibliography, is Paul Koch's "The Making of Printing Types", translated from German by Otto W. Fuhrmann, in *The Dolphin: A Journal of the Making of Books*, No. 1, pp. 24–57. Illustrations by Fritz Kredel. The Limited Editions Club, New York, 1933.

[5] See: 'Paul Beaujon' (Beatrice Warde), 'The Garamond types: 16th and 17th century sources considered', *The Fleuron*, 5, 1926, pp. 131–79. A recent review of Garamond scholarship is James Mosley's "Garamond or Garamont", Typefoundry Blog, Apr. 1, 2011. `http://typefoundry.blogspot.com/2011/04/garamond-or-garamont.html`

[6] The title of this chapter and the bravado of the designers may remind fans of American western movies of a memorable line in the classic *The Magnificent Seven*, delivered by Steve McQueen: "We deal in lead, friend."

[7] A short talk on this chapter was delivered at the TeX Users Group meeting in Toronto, Ontario, on July 27, 2016. Legibility research lost academic popularity in the middle of the century, but scientific reading research was revived in the 1970s and 1980s, principally in three areas: eye movements in reading, researched by G.W. McConkie, Keith Rayner, and Andrew Pollatsek, among several others; psychophysics of reading, researched by Gordon E. Legge and others; various practical studies comparing typefaces, by Cyril Burt, Bror Zachrisson, E.C. Poulton, Dirk Wendt, Herbert Spencer, Linda Reynolds, and others.

Disclosure: As seen above, the reviewer contributed a chapter to this book (but receives no monetary compensation). He has known the general editor over more than three decades of friendly mutual interest in digital typography.

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