

## INTRODUCTION BY STANLEY MORISON

REVISED & AMPLIFIED BY
P. M. HANDOVER

Technical changes in the nineteenth century operated with a speed that made discrimination impossible. Machines were employed for every kind of work irrespective of its right, universally admitted in the eighteenth century, to treatment as an aspect of art. The types used in the printing trade had, since the fifteenth century, been cast from matrices struck from punches which had been engraved directly by the hands of goldsmiths and other chasers and metalworkers. These were the men who were responsible for the craftsmanship, in the creative sense of the word, and for the utility of the design; for its shapes, its measurements, its economic value, its desirability as a reflection of genius. And 'genius' is not too high a term for the work of some of these goldsmith-punchcutters. Benvenuto Cellini certainly knew what he was talking about when he referred to the seals cut by one of them as from the hand of 'the great Lautizio'.

The later professionalization of this work on an independent craft basis, in accordance with the expansion of the art and mystery into a trade and a craft, brought no essential change in the technique; punches were still engraved by hand during the nineteenth century. As Talbot Baines Reed, himself a type-founder, remarked in 1887, the description of typecutting in Paris given by Fournier le jeune in 1764 might have served as an up-to-date manual in the mid-nineteenth century.

In 1885 in Milwaukee a punch-cutting machine was invented by Linn Boyd Benton, a master typefounder. This was the



machine that was destined to disorganize the connection of artist-engravers with the printing trade, to disperse the punch-cutters and to destroy the basis of design upon which typography had rested since its invention in the 1440s.

In 1886, the year after Benton had registered a British patent for his engraving machine, a capital event occurred. In the office of the New York Tribune a machine arranged lines of matrices by the tapping of a keyboard and then pumped lead into the completed lines. Ottmar Mergenthaler's 'Linotype' had worked successfully. Five years later an American journalist named Harold Malcolm Duncan was able to make in Paper and Press the first formal announcement that Tolbert Lanston had succeeded with his 'Monotype' in separating the functions of keyboarding from casting, and had thereby produced a machine setting not single lines like Mergenthaler's Linotype but single types.

The Benton engraving machine was a typographical invention as fundamental as the mould of Gutenberg (c. 1440), the stereotype plate of Johann Müller (1708), the steam press of König and Bauer (1814). Neither the Linotype nor the Monotype would have been possible without the Benton invention. It solved the composing machines' essential need for the mass production of punches.

At this time, too, the typefounders of the United States adopted a new system of measuring their type-bodies. Although many of the old names, particularly those deriving from liturgical printing, were common to most European countries, they were not always attached to bodies of even approximately the same size; for instance, German text was substantially larger than Dutch text. A more troublesome discrepancy was that between body sizes regarded as the same: a German tertia might take the same place in the range of founts as an English great primer, a French gros romain or a Dutch text, all being approximately 16-point, but none was necessarily exactly the same size as the other. In 1694 the French had envisaged a reform with sizes



mathematically based and newly named (Louvre, Bignon, Phélypeaux, Pontchartrain, Louis) but the project was abandoned. A rationalization of the old bodies on a system akin to the point was anticipated by Pierre Simon Fournier in 1737 and perfected by François Ambroise Didot in 1775, but they failed to break down the national preferences for different nomenclature and measurement. When the point system was established in 1886 on an American scale the effect was revolutionary. Henceforth the designing of faces for machine composition could be grounded on a single universal unit of measurement, the point, although in fact the Anglo-American and Didot systems still run in parallel.

In 1900 a separate company was set up in England to develop the invention of Tolbert Lanston; Harold Malcolm Duncan, who had become Lanston's friend and technical adviser, was its first managing director. Not only were the keyboards and casters to be manufactured at the factory then established at Horley but the punches and matrices were to be cut and stamped there too. This factory was ruled by F. H. Pierpont, an engineer who had worked for a company manufacturing machines for slug composition. The first designs were naturally those already proven by the foundries to be most in demand, and series 1 of the new Lanston Monotype Corporation was therefore a 'Modern', since throughout the nineteenth century in books and newspapers the Modern face had reigned supreme and virtually unchallenged.

## MODERN NOS. 1 & 7

First cut by Miller & Richard and recut by the Monotype Corporation in 1900 and 1902

One of the advantages of setting the single types cast on the Monotype machine was that letters could be freely kerned. Modern series I so reduced the kerns on letters like f and j that they might have been designed for slug matrices. On the other



> hand, the face demonstrated the facility with which small condensed letters with fine hairlines could be cut in small sizes on the pantographic engraving machine.

> 'Modern face' was established in France when the romain du roi was cut by Philippe Grandjean on instructions (supported by some engraved specimens) given to him by the commission appointed by the Académie des Sciences in 1692. The influence of this letter upon the Italian printer and punchcutter Giambattista Bodoni was to be great (see pp. 30-2). In France the Didot family of typefounders chiefly developed the Modern face and in the period between the Pierre Didot ainé specimen of 1819 and those of Firmin Didot frères in the 1830s they were performing upon it the operations that led William Morris later so vehemently to condemn the Moderns: the vicious thickening and thinning which made them difficult to read, the lateral compression that was the result of commercial exigency, and the basic crudity that was inherent when craftsmanship was ignored.

During the nineteenth century the Scottish and English founders moved away from the extreme contrast of thick and thin to lighter types that had a grey effect on the page. Thus in 1834 the Edinburgh typefounder William Miller announced new founts, explicitly fitted 'for MACHINE-PRINTING', that were lighter, sharper versions of their earlier Modern, and by the 1860s their Moderns had been further lightened. For instance in 1834 they showed new breviers, nos. 6 and 9 to 13; by 1863 they were showing nos. 18, 20, 21, 22, 28 in the same size.

Monotype series I was based on the weight of the middle period rather than the extreme greyness of the later founts. This was a style of letter to which thousands of readers of Cambridge Press books were accustomed, and consequently it was bought by the Press when the first Monotypes were installed in 1913. At that time considerable pains were taken to compose it to look as much as possible like the founder's type on which it had been based. The II-point, for instance, should have been  $9\frac{3}{4}$  set but at the



Press it was—and still is—10 set, so that it had the same effect as the Miller & Richard 4-nick small pica which it was intended to replace.

In 1902 the Corporation cut the less economical Modern series 7, based on series 1 but with more generous proportions and technically superior. This was the Modern that was bought for use in *The Times* in 1908, when Lord Northcliffe installed Monotypes at Printing House Square in place of the Kastenbeins. The choice was made because series 7 resembled the broad Miller & Richard Modern previously in use; such faces were preferred by newspapers for their economic advantage in the classified advertising. The Cambridge Press also bought series 7 in 1913. Both series 1 and series 7 were supplied with a very wide variety of peculiar, including mathematical and scientific sorts, and with Greek and script founts of allied design and set. Because of this richness series 7 has still not been supplanted at the Press and is not likely to be so long as hot-metal type is used.

It was the Moderns that in the nineteenth century had already been cut with the special sorts needed for science and mathematics and thus their position was firmly entrenched against the Caslon old-face revival after 1840. This appeared to concern only the printers of literary classics or of devotional books or poetry. The Euclid (1847) printed in Caslon by the Chiswick Press was a solitary departure and justified by the antiquity of the text rather than by the scientific content. The Victorian eye had become accustomed to the regularity of the Modern letter, to the neatness of its fit and the refinement of its cutting. Consequently the Caslon revived by William Pickering and the Chiswick Press in 1840 was by contrast even more irregular and less shapely than it would have seemed to either the eighteenth- or the twentieth-century reader. The original founts of Chiswell Street (described on pp. 24–27) needed to be 'improved'.



## OLD STYLE

First cut by Miller & Richard in 1858 and recut by the Monotype Corporation in 1900

'The faces which were cut in the early part of the last century are now unpleasing both to the eye of the critic and to the general reader, on account of their inequality of size and consequent irregularity of ranging'—so the Edinburgh typefounders Miller & Richard commented in 1860. Two years earlier they had ventured on the first two sizes of a modernized Caslon and by 1860 had completed a series in which they had 'endeavoured to avoid the objectionable peculiarities, while retaining the distinctive characteristics of the mediaeval letters'.

Old Style, as they named their 'mediaeval' letter first cut in 1858, can fairly be described as an invention. What in Caslon did not conform to Victorian ideas of typographical rectitude had been cast out. Even swash letters were not included. Eyes used to sharpness of cut and regularity of letter-width found both in Old Style. Most important of all, the stress was vertical. Here was a respectable cousin of the Didot Modern.

Variations described either as Old Style or—so great was the authority of Miller & Richard—as Mediaeval were cut not only in this island but abroad, and even the Chiswick Press bought founts. The success of Old Style was not undeserved, for the design was practical for commercial purposes in a manner similar to the several 'legibility' faces designed for newspaper composition in the 1920s and 1930s. The lack of pedigree did not worry the Victorians. In April 1890 Talbot Baines Reed told the Society of Arts how the 'mediaevals' had been 'embellished...with the delicate tapers and hairlines of the modern school'. The dexterity in typefounding so displayed had his approval: 'This opportune return to the past, I venture to think, is a hopeful sign for the future.' The Cambridge Press shared the general enthusiasm and relied upon Miller & Richard's Old Style until the installation of



the Monotype enabled it to take advantage of Monotype Old Style, series 2, cut in 1900 on the same model.

Even in 1858 Old Style had been contrived to display the resources of the Industrial Revolution. By 1900 the place of the skilled craftsman having full responsibility for the form of the letters destined to appear on the printed page had been taken by engineers and inventors of machinery, attended by syndicates of capitalists and financiers. For such the economic exploitation of an invention was the single desideratum, and printing as an artistic skill did not exist. It was precisely this destruction of art by industry that Morris set himself to combat.

In 1888 Emery Walker had delivered the lecture on printing to the Arts and Crafts Exhibition Society that inspired Morris to make a new type. An anti-renaissance man himself, Morris raised the humanist cry 'ad fontes'. In 1891 the Golden type, the first fount to be used for Morris's Kelmscott 'private' press, was cast by Reed from the punches of Edward Prince. In 1892 Morris acquired the assistance, as secretary, of Sydney Cockerell. In 1898 Cockerell was introduced by W. R. Lethaby to Edward Johnston, who was studying calligraphy at the fountain-head—the British Museum.

It is to these men, Morris, Walker, Cockerell, Lethaby, Johnston, that we owe the recovery of the right making of letters in both calligraphy and typography. Reed died at the age of fortyone. His first school story, *The Adventures of a Three-Guinea Watch*, was published when he was twenty-eight, and his *History of the Old English Letter Foundries*, so remarkable an achievement for its time (and later admirably brought up to date by A. F. Johnson), was published in 1887, when its author was thirty-five. He was the first honorary secretary of the Bibliographical Society, and it may well have been he who persuaded Morris to address the Society on the subject of the 'Ideal Book' on 19 June 1893, in which year Reed died. Had he lived it is certain that, with his practical trade knowledge, he would have accelerated the process

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by which the immediate 'aims' of the Kelmscott Press became understood by an audience far more numerous and widespread than the subscribers to *The Glittering Plain* and the *Chaucer*. Reed could have rendered these 'aims' apt to be handed on to future generations of typographical craftsmen; thereby to have wedded the artistry of the 'private' to the industry of the 'trade' press. Lamentable as Reed's early death was, the movement did not languish, thanks mainly to Walker.\*

In 1899 Johnston, having taken in his fill of calligraphy at the fountain-head, began to teach at the Central School of Arts and Crafts in London. After Reed's death, the effect on the trade of this recovery of knowledge was felt principally in Germany, the classical land of printing and possessor of more typefoundries than any other country in the world. The German artists, active from 1900 to 1925 under the impulse of the British Arts and Crafts Movement, and of the 'Münchener Renaissance' style that was its contemporary, produced many new designs. Yet few showed promise of satisfying British printers desirous of providing themselves with new book-faces. They required a type which, while being new, could be relied upon to be in use for a number of years. Judged by this standard there was only one, out of the scores then cut, of the new German book-types that has justified itself—

the roman and italic cut by the Bauer Typefoundry in 1925 from the designs of Emil Rudolf Weiss.

Another factor of prime importance was that the work of these artists was not designed with the right mechanical means in view. Despite the efficiency of German industry as a whole, mechanization in the composing rooms of houses specializing in bookprinting had proceeded relatively slowly. Newspaper houses apart, German printing continued to rely upon composing by hand. Hence, it was not foreseen by German artists that mechnical composition would, sooner or later, take first place.



At this time the typefounders were the beneficiaries as well as the champions of hand composition. Also they led in the creation of types appropriate for advertising and publicity, branches of the trade in which novelty and display are requisite. The book sizes of novel types obtained considerable use—for a time. There is, or was, outside Britain a tendency to like what was new for the sake of its novelty. Thus, in sum, German book-faces designed for private presses became strongly personal and those for publicity purposes very striking.

The situation was not dissimilar in France and the United States. From the last-named country came the final transmogrification of Caslon, the triumph of Old Style: Cheltenham Old Style, designed by an architect, Bertram Goodhue. The longworshipped contrast of thick and thin strokes and the tapered serifs were abandoned in favour of even tone and blunt serifs; A was startlingly sheared and g strikingly contorted. Cheltenham was to enjoy a popularity that has possibly not been equalled except by Times New Roman and Univers. Like the latter it was an all-purpose type, and the first to be made. No other face was at that time available in so great a range of normal, wide and condensed weights, all readily identifiable. It was originally cut by American Type Founders, and was quickly reproduced on the hot-metal composing machines and used for books, newspapers and general printing.

## IMPRINT

Cut by the Monotype Corporation for *The Imprint* in 1912

Among the new generation of the Arts and Crafts Movement, then led by Lethaby, there were dissidents who found the private press faces unsuitable for general trade use. Friends of Edward Johnston, such as Gerard Meynell of the Westminster Press and J. H. Mason, director of printing at the Central School, believed



that what was needed was a face as generally useful as Old Style series 2 but more distinguished in pedigree and less anaemic in appearance. In particular they saw the need for a face that would print well on the coated paper needed for half-tone illustration. They proposed to combine the distinction of the private press types with the practical needs of the commercial trade.

Their convictions extended beyond type design: they also planned a periodical that would raise printing 'to its worthy place among the crafts'. Meynell was not only a printer but an energetic propagandist, gifted like others of his family with a lively mind and artistic tastes; Mason had worked with Cobden-Sanderson at the Doves Press. In collaboration with Johnston and Ernest Jackson, an expert in lithography, they would undertake a new journal for the trade. In August Meynell wired Johnston: 'Have chosen the simplest title—The Imprint'. The new type designed to the specification of Meynell and his associates was appropriately christened Imprint Old Face. The matrices which the Corporation had been instructed to prepare arrived at the Westminster Press on 13 December 1912 and no. 1 of The Imprint appeared in January. The editors referred only to a newly designed type which they were confident would bear comparison with the best of the privately owned types and did not discuss details or general principles. It was clear, however, that they had returned to pre-1858 and considered a reformed Caslon. Thus the letter width of Imprint is more regular than original Caslon, though not so monotonous as Old Style. The letters fitted together well in the manner of a Modern. Details such as the absence of a lower serif on C were shared with Old Style but the stress of Imprint was not vertical and this effectively distinguished it from all the inheritance of the Miller & Richard invention. The originality of Imprint lay in the x-height and the weight, both more generous than in original Caslon. Indeed, when Imprint and Caslon were printed for comparison on coated paper it might be seen that they had little in common.