ANATOMY OF A TYPEFACE

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FUTURA AND THE GEOMETRIC SANS-SERIF TYPES

The types that Americans call gothic and that Europeans call grotesque were the first serifless letters to achieve popularity as printing types. Now, more than a century and a half since their introduction, their appeal has not diminished in the eyes of most typographic designers. Naturally there have been several dips in the curve of these styles' acceptance, but they continue to flourish and fulfill a substantial niche in the typographic requirements for commercial printing.

The specimen books of the nineteenth-century typefounders were brimming with gothics, and when the family concept of providing various weights and widths for one face became established – after 1900 – it seemed that these types would continue their domination of commercial printing. In the midtwenties, however, the gothics experienced a setback, which was to last for a quarter of a century. This was a result of the influence of the German school of design (encompassing the Bauhaus), from which emerged an approach to structuring serifless letters that captured the imagination of the younger typographic designers. The typeface that expressed *die neue Typographie*, 'the new typography,' was Futura.

But though Futura made a definite impact upon its introduction in 1926, it was not the first sans-serif type to depart from the gothic model – there were antecedents that had influenced its design. Probably the most important of these was the alphabet drawn by Edward Johnston for the London Underground Railway in 1916. Johnston was an outstanding teacher of calligraphy, who in 1906 had published *Writing and Illuminating and Lettering*, a work that held great authority in England and Germany and is still considered probably the most influential book on lettering ever published.

The Johnston Underground Alphabet – still in use – represented a departure from the nineteenth-century gothic letters. Whereas these gothics had been primarily serifless modifications of roman forms,



Futura Medium (Bauer)



The "Underground" type of Edward Johnston



Herbert Bayer's experimental Universal typeface, 1925

Johnston, with compass and straightedge, created monotone characters of geometric construction. Utilizing his profound knowledge of traditional letters, he produced an alphabet that had far greater legibility than the earlier sans-serif forms.

The Johnston approach to sans-serif lettering was to come to fruition in the type of the fine English designer Eric Gill. Named Gill Sans, this face was cut by the Monotype Corporation in 1928 and

rapidly became the most widely used serifless type in Great Britain. As the American Monotype firm refused to offer the Gill type for the American market, it received limited use here with the result that the Continental sans serifs became dominant.

In Germany just before the First World War there had been a movement to discard conventional ideas in typography. Its spokesman, Jakob Erbar, believed that the type that would best express the new concepts would have to be a serifless letter. The world conflict delayed the spread of Erbar's ideas, but after the war their effect was enhanced by the Johnston alphabet, giving further impetus to the reform movement.

In 1919 the Bauhaus school, under the direction of the architect Walter Gropius, brought to fruition some of the untried theories of design–particularly those related to architecture–that had previously only been discussed. Function and form became the key words of the philosophy of this new design, whose focus was the elimination of the Victorian 'gingerbread' decoration on buildings and the substitution of pure line. Applied to type, this approach could only result in clean sans-serif characters. And what could be more appropriate than constructing these characters with compass and straightedge?

The timing of the sans-serif experiments coincided with a period that many observers of typography considered deplorable. Blackness reigned supreme, in such faces as Cooper Black, Ultra Bodoni, and Broadway. Complementary to the heavy types were rules of equal weight, with dingbats and cubes to match. Thus, the functional movement, with its clean lines and geometric distribution of white space, offered a most dynamic contrast to the existing styles. Indeed, American typographers had been experimenting with the asymmetric designs of the neo-Bauhaus period before Futura became available. And since the resulting designs–being based on the extra-bold types then popular–were appalling, the advent of the German sans serifs by contrast sparked even greater enthusiasm for geometric sans serifs.

The first type to emerge from this philosophy was a sans serif designed by and named for Jakob Erbar. Produced in 1926, this type should be recognized as the initiator of 'the new typography,' but it was followed closely by another design, Futura, that appeared to most observers to be superior in every way. Futura captured the imagination of typographers worldwide and thus robbed its predecessor of its claim to being 'the first.'

Futura was created by Paul Renner, a book designer and founder



Original concept of the Futura design by Paul Renner

of the Masters' School for German Printers in Munich. As originally conceived, Futura represented what can only be termed an abstraction of the idea of the roman letter. The capitals were more traditional than the lowercase characters, and they followed more closely the features of the earlier gothics, although they were of monotone and geometric construction. But in drawing the lowercase, Renner's obvious enthusiasm for 'form follows function' resulted in a font in which several letters became caricatures of classic minuscules.

Renner offered the design to the Bauer Typefoundry of Frankfurt, which recommended a number of changes based on its long experience in producing printing types. The design as it is now recognized was completed in 1927. The major changes, made in the lowercase charac-

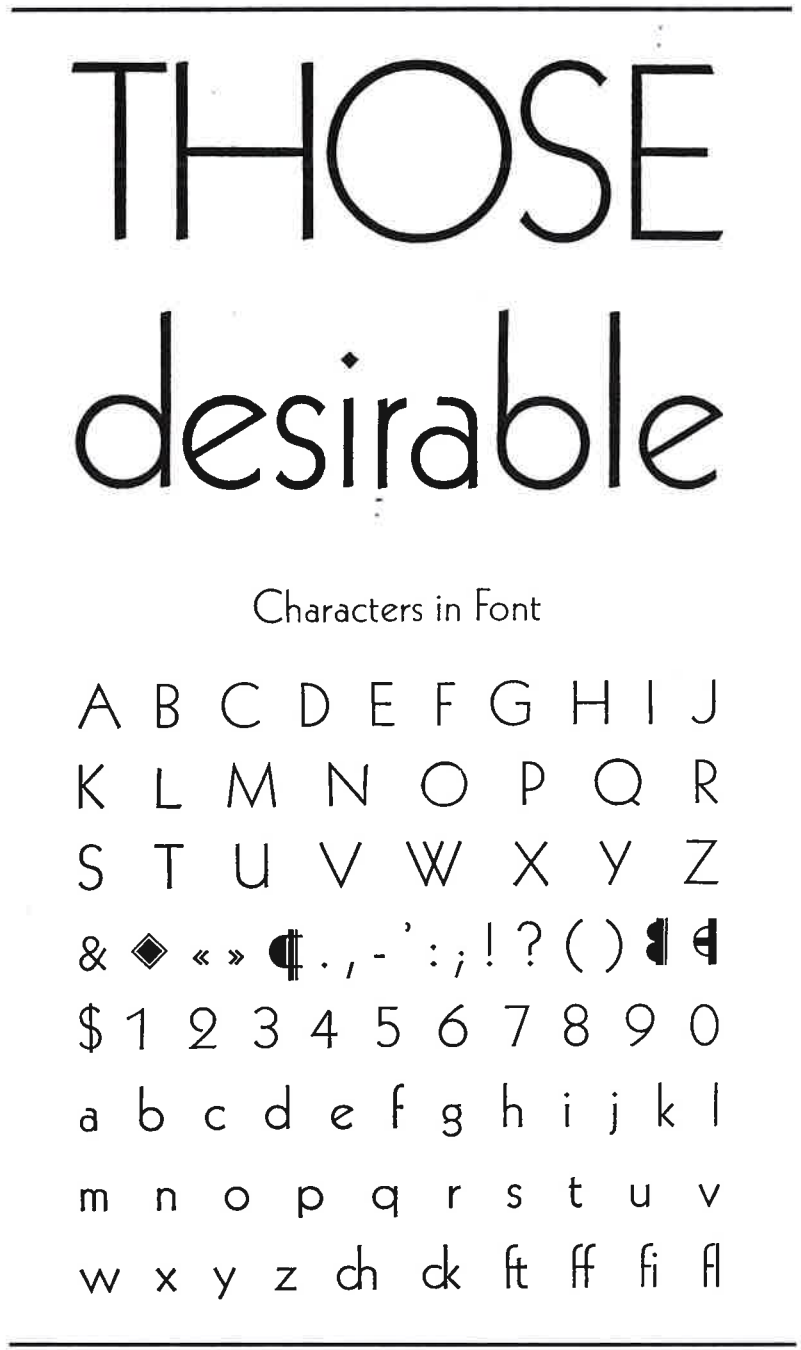
ters, brought them closer to the accepted forms. The type became enormously successful and instigated a sans-serif renaissance that quickly spread from Europe to the United States.

At the same time that Futura was under development, the most widely known and respected German type designer, Klingspor's Rudolf Koch, was also preparing a geometric sans serif, ultimately named, for the export market, Kabel. Appearing the same year as Futura, Kabel was also heartily received.

As Koch was in every sense a traditional designer – who had cut many of the punches of his earlier types by hand – he evidently found it more difficult than did Renner to depart from the normal roman forms. For example, in Kabel the lowercase *a* is in the standardized roman pattern, as are *g* and *t*. The *e* reaches back to the Venetian period in its retention of the slanted crossbar. It is in the capitals that Kabel holds more closely to the geometric style, although several letters are unique among the sans serifs in having slanted stroke endings.

In the cap font Futura is a surprisingly simple design of plain block letters with no remarkable individual characters other than perhaps the *Q*, whose tail is a diagonal that is longer inside the counter space than outside it. It may be noted that the caps are shorter in height than the ascenders of the lowercase, a feature of practical value in German-language printing in which there are so many capitals. The lowercase alphabet utilizes the perfectly round *o* as the base for seven other characters, which are changed with the mere addition of a stroke to create *a*, *b*, *d*, *e*, *g*, *p*, and *q*.

Together Futura and Kabel were received by the more progressive typographers in the United States as harbingers of a whole new world of typography. Some traditionalists, as could be expected, took an entirely different view – one of them called the faces 'block letters for block-heads.' It was probably the combination of geometric sans-serif types with the asymmetric design that was most disturbing to the conservative typographers. But the movement could not be halted or even slowed. The excitement greeting the debut of the geometric sans-serif types in the United States prompted the American manufacturers of type and matrices to take immediate steps to counter the competition from the German foundries. By 1930 this had been accomplished, but since accurate records of the dates of introduction of these designs do not exist, it is difficult to determine the exact sequence of presentation. The fact remains, however, that within



Kabel Light

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Kabel Bold, designed by Rudolf Koch for Klingspor foundry

three years of the arrival of the German types, all American manufacturers had produced competitive styles.

The Intertype Corporation entered the sans-serif derby with the Vogue series, created for the fashion magazine of the same name. Designed anonymously, Vogue superficially resembles Futura. The response to Futura of two of the other manufacturers of linecasting machines – the Mergenthaler Linotype Company and the Ludlow Typograph Company – was the production of independently designed sans-serif styles. Mergenthaler turned to one of the finest graphic designers of our time, William A. Dwiggins.

A year previously, Dwiggins had written a great book on the subject of typography, entitled *Layout in Advertising*. In this volume he had discussed the legibility of types and stated: 'Gothic in its various manifestations has little to commend it except simplicity. It is not overly legible, it has no grace. Gothic capitals are indispensable, but there are no good Gothic capitals; the typefounders will do a service to advertising if they will provide a Gothic of good design.'

Dwiggins received an immediate response from Harry L. Gage, at Mergenthaler, who requested that Dwiggins define good design in a gothic, illustrate it, and then cut it for the Linotype. This Dwiggins proceeded to do, and from then on he was, in addition to all of his other roles, a type designer.

Linotype's sans serif was named Metro, and the first series to be drawn was the bold weight called Metroblack. The subsequent variants of the series were drawn by the firm's design department under Dwiggins's supervision. Metro is at its best in the capitals, which represent the same approach as that of Edward Johnston to his alphabet for the London Underground. In the lowercase several characters depart from the geometric principles, such as the *e* in its

HOW IS ONE TO ASSESS AND EVALUATE A TYPE FA
How is one to assess and evaluate a type face in terms of its esthetic design? Why do the pace-makers in the art of printing rave over a specific face of type? What do they see in it? Why is it so superlatively pleasant to their eyes? *Good design is always practical design.* And what they see in a good type design is, partly, its excellent practical fitness to perform its work. It has a "heft" and balance in all of its parts just right for its size, as any good tool has. Your good chair has all of its parts made nicely to the right size

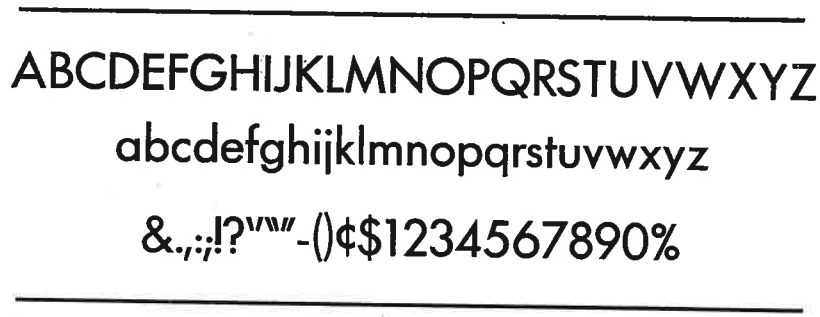
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Metromedium (Linotype)

thin crossbar and the *f*, *j*, and *t* in their peculiar slabbed-off stroke endings.

A successful individualized approach to the redesign of a gothic – which has sold very well for Linotype, particularly in the newspaper field – Metro is nonetheless scarcely a face in the Futura pattern, and it was later felt that a closer copy of Futura was needed. This was supplied in conjunction with the American Type Founders Company when Spartan, an almost identical copy of Futura, was brought out in the early 1930s.

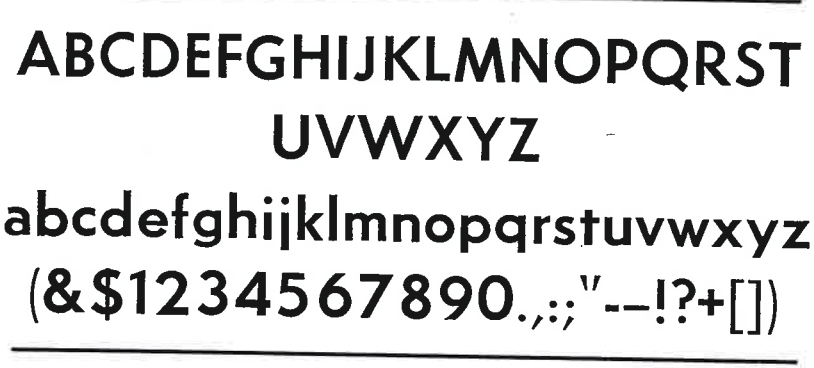
Another rendition of the Futura design was created by R. Hunter Middleton, typographic director of Ludlow. Like Dwiggins, Middleton was intrigued by the sans-serif idea, and he, too, went his own way. When he introduced it in 1929, Middleton called Stellar 'a modification of the Futura severity,' although, like Metro, it was a considerable remove from Futura, actually resembling a humanist sans serif, a form that would garner attention thirty years later. Under pressure from its customers, Ludlow felt it necessary in 1930 to pro-



Spartan Medium (ATF)



Bernhard Gothic Medium (ATF)



Tempo Bold (Ludlow)

vide a type closer to Futura, and thus brought out its Tempo series, also drawn by Middleton.

Meanwhile, the American Type Founders Company had contracted for a sans-serif type with Lucien Bernhard, a German artist who had come to the United States in 1923, having earlier produced several types for the Bauer Typefoundry in Germany. In 1929, the series called Bernhard Gothic was introduced. Displaying his skill as an imaginative designer of posters, Bernhard brought the same flair to his sans-serif type, prompting an instant acceptance by printers dependent on foundry types.

But despite the success of Bernhard Gothic, ATF was also compelled by competition from the European foundries to make available for American printers a sans serif that was closer to Futura. As mentioned above, this decision to satisfy the market resulted in the joint undertaking with Mergenthaler to bring out Spartan.

The Lanston Monotype Company in Philadelphia, in its desire quickly to provide a geometric sans serif, adapted Koch's Kabel design, naming it simply Sans Serif. But during the middle 1930s, under the direction of Sol Hess, this firm also bowed to the inevitable and manufactured its own copy of Futura, which it called Twentieth Century.

It may be noted that Monotype also asked Frederic W. Goudy, in 1929, to produce a sans serif. He acceded to this request somewhat reluctantly and, like his fellow-American designers Dwiggins and Middleton, turned away from the German style. The type that emerged, Goudy Sans, was disappointing to the Monotype firm, though it was nonetheless produced. Goudy later wrote of it, 'I attempted to give to my type a definite expression of freedom and a personal quality not always found in this kind of a letter.'

The Intertype Corporation was the only American firm to enter into an arrangement with the German Bauer foundry to produce Futura for machine-composition, and it was given permission to apply the original name to its cutting.

With the availability of Futura in either the original or the numerous copies, it may be seen that the geometric sans serif came into its own during the 1930s. Although there have been a few periods when the nineteenth-century gothic types have returned to favor, the Futura style has remained possibly the most popular of all the sans-serif types for the past half-century.

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xyz 1234567890

20th Century Bold (Monotype)

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Gill Sans Bold (English Monotype)



Eric Gill