Review article

From functionalism to information design

Christopher Burke

Jan Tschichold
The new typography: a handbook for modern designers.
Translated by Ruari McLean.
With an introduction by Robin Kinross. Berkeley/Los Angeles/London: University of California Press, 1995
ISBN 0 520 97146 8
(236 + xliv pp) £32.00, $40.00

author's address
Department of Typography & Graphic Communication
The University of Reading
PO box 239
Reading RG6 6AU
England

Jan Tschichold's 1928 manual *Die neue Typographie* is the most important text of modernist typography. Tschichold's emphasis on clarity in typographic design, and his attachment of a social conscience to the activity of typography, established a root which has grown, along one branch at least, into information design. Robin Kinross has already made this suggestion:

> that the assumptions and beliefs of information design can be traced to the period of heroic modernism (between the two wars) and that they spring directly from certain post-World War II mutations of the modern movement. Thus, in order to understand the present situation of information designers, one needs to investigate modernism and its history. (Kinross, 1985, p. 24)

More specifically, the seeds of information design can perhaps be recognized in German functionalism of the 1920s, of which Tschichold's *The new typography* is a prime example. The dogmatic aura of functionalism exudes from the typographic design of the book – sans serif for text, with an overly bold weight used for page numbers and for emphasis in certain words. (The new English edition is an attempted facsimile of the original in its design.) Tschichold's book emerged from a period which spawned most of the '-isms' that have shaped this century: the inter-war years. Moreover, it was written at a hot-point when Germany was being torn apart by polarized communist and fascist tendencies. In his book Tschichold tellingly remarks that a 'moderate' point-of view does not exist (p. 61). Indeed it must have seemed difficult to sit on the fence in any issue during Germany's Weimar years. While this context may not excuse Tschichold's dogmatism – he was almost as dogmatic in later years – it certainly helps us to view this book in perspective. (Robin Kinross's introduction does an excellent job of placing Tschichold in context.)

Information design journal 9/1 (1998) 51–58

Until this first publication in English in 1995, *Die neue Typographie* had remained one of the great unread books in the English-speaking typographic world. Its contents have been assumed to constitute a monothematic, modernist tract. In some respects, this is true, but it is satisfying to finally have the opportunity of judging the full text. (In fact, there are frequent passages of pragmatic moderation, but, inevitably, these do not dominate one's impression after reading it.) At the time of writing his book, Tschichold was a socialist, and his words carry the revolutionary tone of manifestos. It is not unreasonable to see the New Typography in the light of reformist hope kindled by international communism in the early years of the Soviet State. (Tschichold had strong links with Russian colleagues). Try supplanting 'Communism' for 'the New Typography' in the following passage:

> The New Typography, after being violently attacked and often decisively condemned, has now established itself in Central Europe. Its manifestations confront modern man at every step. Even its most ardent opponents have eventually had to resign themselves to accepting it. (p. 7)

For Tschichold, the New Typography was an historical inevitability:

> The break with the old typography, made complete by the new movement, means nothing less than the total discarding of decorative concepts and the turn to functional design. This is the fundamental mark of the modern movement; and the New Typography, no less than the new technology, the new architecture, and the new music, is not a mere fashion but the expression of a newly opening epoch of European culture. (p. 64)

Tschichold was an evangelist of the New Typography, and implied it to be a kind of faith, or – even better for the atheistic modernist – a science:

> The 'form' of the New Typography is also a spiritual expression of our world-view. It is necessary therefore first of all to learn how to understand its principles, if one wishes to judge them correctly or oneself design within their spirit.[1] (p. 7)

New Typography indeed made romantic overtures to science and engineering. As in Le Corbusier's pioneering text of functionalism, *Towards a new architecture*, the noble figure of 'the engineer' is a hero of Tschichold's text. Like 'the worker' idealized by Communism, the engineer was supposedly free from bourgeois aesthetic standards: he provided models of functional design, free from the clutter of applied ornament which had plagued the nineteenth century. The surfaces of efficient, gleaming machinery set the agenda for aesthetics in design during this period of rapid urbanization in Germany. The full effect of an industrialized consumer culture really began to hit Germany in the mid 1920s, with the first application there of American-style production-line technology. There is consequently a strong element of technological determinism in *The new typography*: without acknowledging its source, Tschichold quoted Gottfried Semper's canonical axiom of functionalism – that form derives from material, purpose and technology (p. 65). Tschichold implied that 'the new developments' were 'based not so much on artistic experiments as on the new methods of reproduction which together with social needs created the new requirements' (p. 64). It is true even today that technological developments, ensuing from market forces or social needs, do determine new genres of graphic objects which require

1. Tschichold excused some of the examples of typographic design illustrated in his book for not fully adhering to the principles of New Typography: for example, in a caption for an advertisement designed by El Lissitzky, Tschichold apologizes: 'The axial arrangement of some of the paragraphs is due to the compositor' (p. 198). Tschichold felt that he had to account for the fact that all examples of typography did not conform to his seemingly universal system.

new strategies from designers – electronic displays, the Internet (which is really the definitive dream of modernist graphic designers of the 1920s – the 'electro-library', as El Lissitzky put it). Tschichold called technology a 'second nature', which is 'organic (in an intellectual sense)'. But he was careful not to imply that the machine leads man by the nose: 'electro-mechanization as an end in itself is nonsense: its true purpose, by satisfying basic needs through mass-produced objects of highest quality, is to awaken our creative powers.' (p. 12)

So the end goal of Tschichold's modernism was spiritual. This is perhaps where functionalism differs from information design. At least as manifested in *Information design journal* in the final years of the twentieth century, information design seems to have foregone utopian visions. It seeks to cater for the basic needs of communication, and does not want to preach beyond that. The information-design view is that clarity of communication is still a mostly unrealized aim that is worth striving for. This fundamental principle does, however, mark information design as a direct descendant of Tschichold's brand of functionalism. Despite the epochal rhetoric which obscures much of his argument, Tschichold's text sometimes blasts us with its enduring insights. Here is an example:

> *The New Typography is distinguished from the old by the fact that its first objective is to develop its visible form out of the functions of the text.* It is essential to give pure and direct expression to the contents of whatever is printed; just as in the works of technology and nature, 'form' must be created out of function. (pp. 66–7)

The first sentence here was letterspaced for emphasis and marked by a bold rule in the margin (both conventions are preserved in this English edition). In this way Tschichold did mark his key phrases, but he had to spin out his thesis over a whole book, and therefore he had plenty of opportunity to dilute the essence of his argument. The second sentence of the above quotation begins to do this, and also begins to expose the weaknesses in Tschichold's functionalist position: in speaking about 'form', he is in danger of being misunderstood, at least by English-language readers today. I suspect that by 'form' Tschichold meant something non-superficial, and deeply connected to the usability of an object. But it is easy to assume that he meant outward style. There is certainly a tension running through his text due to the unresolved question of how far New Typography's functional aspirations were really achieved and how much they simply consisted in applying the requisite stylistic attributes. He corrected those who perceived New typography to be only a style:

> Many still regard the New Typography as essentially a kind of technical-symbolical formalism, which is the exact opposite of what it really is. ... Merely to copy its external shapes would be to create a new formalism as bad as the old.' (p. 7)

But Tschichold also explained that the purpose of his book was 'to state clearly the principles of typography, and to demand the creation of a contemporary style' (p. 13). These two statements are not necessarily contradictory, but they beg the question as to whether New Typography's very specific style could be separated from a set of principles. Outside of the rhetoric of functionalist theorists, evidence of functionality in so-called functionalist design was often integral with a certain brand of machine-age aesthetics. So functionalism became a formalism, which is exactly what its propagandists yearned for it not to be. The Swiss typographer Jost Hochuli (1996, pp. 27–8) has distinguished between functional and functionalist typography, explaining that a piece of typography may employ the visual repertoire of functionalism (for example, strongly contrasted sans serif typefaces, elementary colours and shapes) without being

functional.[2] But the question remains, who decides what is functional when it comes to typography?

What was the 'function' of which Tschichold spoke? It was not measured by any of the evaluation techniques called upon by information design. The reader's needs are not discussed in Tschichold's text, apart from the odd mention ('The typographer must take the greatest care to study how his work is read and ought to be read.' [What did he mean by 'ought'?]). The function of the New Typography seems largely to have been wished into existence by the words of its theorists. But Tschichold cannot be blamed for not taking into account legibility studies, which only began to enter the consciousness of typographers several decades after his text was written.[3] His stance was undoubtedly a moral one, and it prefigured the current interdisciplinary ideals of information design. For example, he stated that the ideal typeface 'will be the work of a group, among whom I think there must be an engineer' (p. 74). Tschichold really paved the way for those reconstructed typographers of the sixties and seventies who were willing to suppress their aesthetic egos and accept advice from psychologists and ergonomists.

2. Robert Waller (1979, p. 45) has also made this distinction, concluding that: 'A really functional (as distinct from functionalist) typography is thus invisible.' Here Waller unintentionally invoked Beatrice warde's famous catchphrase 'printing should be invisible'. Warde's essay 'The crystal goblet' (1932) is a piece of gospel from the British new traditionalist movement, contemporary with continental New Typography. These two movements are generally perceived to be opposites, but there is certainly some overlap. For example, Tschichold said in 1928 that typography 'is never an end in itself'; Stanley Morison, chief theorist of new traditionalism, stated in 1930 that typography 'is the efficient means to an essentially utilitarian and only accidentally aesthetic end'. See Tschichold's essay 'New typography' (1937) for his own comparison of New Typography and new traditionalism.

The example of a rational approach to typography which still stands out as valid in *The new typography* is the section on standardization. Tschichold embraced the DIN[4] standards concerning the design of stationery (published in 1924) for the benefits it brought to senders and receivers of correspondence. Fields on a DIN A4 sheet were predefined for specific information (addressee, reference, date etc.), and were positioned so that they would work with window envelopes. Tschichold approved of the potential for saving labour and time – for example, the address did not have to be typed twice (due to the window envelope), and letters in a standard A4 format could be easily relocated after having been filed. Although he recognized the aesthetic distinction of letterheads which had been 'designed' over and above being simply standardized, it was the social dimension of the standards which was most important to Tschichold. He called standards 'an economic necessity' and placed most importance on formats:

> Choice of format used to be made primarily on aesthetic grounds, but must now be revised and made on higher grounds, because of the enormous increase – in the 19th and especially the 20th centuries – in the amount of printed matter. (p. 96)

Tschichold listed the benefits of standard formats to paper manufacturers and printers. His passion for standards was symptomatic of the drive for efficiency in business (and life in general) during the 1920s in Germany, when its economy was under urgent reconstruction: 'Rationalization' became a household word. The enduring utility of such standards in business correspondence and office use cannot be

3. As Robin Kinross notes in his Introduction (p.xliii, n.5), a nod in the direction of legibility research was made by Heinz and Bodo Rasch in their book about New Typography, *Gefesselter Blick* (1930).

4. DIN: Deutsche Industrie Normen (German Industry Standards, comparable to the British Standards).

doubted and indeed, the DIN standards (as the nucleus of later international standards) have become widespread and Tschichold's recommendations are everyday practice for a great number of office workers.[5]

But Tschichold also called for standardization in book production, in which standard formats are of disputable advantage, as has been proven by the fact that DIN formats have never become common for books. Tschichold's colleague and fellow theorist of modern typography Paul Renner (1939, pp. 83–4) firmly rejected the suggestion of DIN formats for books. He perceived in this suggestion an unthinking rationalization on the part of engineers, who lacked the sensitivity of book designers. Although Tschichold's position on DIN formats for books is unclear, he did admit that New Typography could not easily revolutionize books:

> There is absolutely no need for change, which would only be justified when a really new form is found. In connection with typographic form, only modifications in traditional book design are possible.' (p. 224)

New Typography mainly defined itself outside of book design: in the last section of *The new typography*, 'Principal typographic categories', most of the items covered are outside the realm of text design. Tradition still governed the form of books and newspapers: Tschichold perceived the spirit of the modern era in newer graphic objects – posters, letterheads and advertisements. Here is another characteristic shared by information design, which also defines itself largely outside the field of book design. There exist tried and tested solutions for designing text (which are conventionally accepted but not necessarily proven to be effective), whereas there are modes of conveying information today which seem worthier of research. The design of most books cannot usually be considered of life-saving importance, as the design of a car axle, or an elevator mechanism could be. Information design seeks to engage with those categories of graphic display which do potentially carry such importance. Information design is saying that graphic design is too important to be left solely to graphic designers. This tendency is prefigured in Tschichold's desire to seek 'higher grounds' for decision making than aesthetic ones.

One of Tschichold's suggestions for making typography functional which now seems peculiarly rooted in Germany of the 1920s is his advocacy of *Kleinschreibung* – writing and printing using small letters only. In this case, the scientific support brought in by Tschichold was spurious: Walter Porstmann's theories on the economic advantages of dropping capital letters from the character set. This attempted reform, which Tschichold promoted as 'economy in type design', was actually driven by ideology (not practicality): it was a reduction of means in order to graphically express economy and efficiency. The German language may (still) have a surplus of initial capitals, but getting rid of all capitals would deprive graphic language of a valuable means of articulation. Consequently, *Kleinschreibung* never caught on.

In his day, Tschichold was trapped in the position of an interloper attempting to wrest control of typography from printers and codify it under the banner of design (albeit that the bulk of his contemporary readership were trade compositors).[6] He was perceived as an invading artist in the field of printing, and this is partly how he defined himself. Although he recognized the anonymous engineer as his inspiration, he was one of a self-appointed band of

5. Or, 'throughout the metric world (that is, everywhere except North America)', as Robin Kinross points out in his introduction.

6. The original publisher of *Die neue Typographie* was the Bildungsverband der Deutschen Buckdrucker (Educational Association of the German printing trade union).

intellectual leaders who took it upon themselves to define a movement. 'A few clear heads,' he called them, 'the avant garde of all nations' (p. 13). He further explained:

> In the period after the war the creators of abstract painting and constructivism worked out the rules for a contemporary style of typography in practical work. The same aim that had led to 'absolute' painting – design coming from basic form and proportion – when applied to our field produced the new typography.' (p. 58)

Yet, in a self-contradiction characteristic of his book, Tschichold stressed the secondary nature of aesthetics in functional design. When discussing the virtues of standard formats for business correspondence, he stated: 'But a letter is first and foremost a communication, and aesthetic appearances must be less important than the purpose of a document' (p. 127). Tschichold implied that 'functional' means 'non-artistic', distinguishing between 'pure typography' and the kind of advertising which requires a painter's eye.

Information design would surely recognize itself in this view. It certainly admits no legacy from art – the very term 'information design' defines itself in opposition to art. It has the same aspirations towards scientific status as the New Typography, but by having imported research techniques from scientific disciplines, information design has gone farther towards fulfilling these aspirations. Advertising seems to be the very opposite of information design (although Tschichold recognized it within New Typography). The phrase 'information design' was used by the Czech designer Ladislav Sutnar when writing about his work in commercial graphic design in the USA in the 1950s.[5] Sutnar came directly from Central European functionalism, and subsequently applied his skills to commercial catalogues and marketing displays. In terms of information design as reflected by *Information design journal*, the credentials of Sutnar's information design seem somehow to be tainted by commercialism.[6] The kind of designing discussed in the pages of *IDJ* generally concerns information intended to aid or improve. Information design, as a term for a potential discipline, seems to suggest the design of complex information about systems. It may be information about natural systems (maps, weather charts), or about social systems (travel timetables, governmental forms, telephone directories). Of course, one could argue that designing a book for children in such a way that it aids them to read (including perhaps enticing them with attractive illustrations) is also information design. But the term information design seems to carry a connotation of seriousness and rationality, with not much room for frivolity. Information to help us move through this increasingly complex world must, of course, be given serious treatment. In this respect, current information design maintains a strong core of Tschichold's earnest 1920s functionalism.

Information design may not be materialist in the sense of being led by greed, but it is in the sense that it apparently rejects aesthetic or philosophical pretensions in the interest of looking after the basics – taking care of the daily bread before nourishing the spirit. This idealism is in itself a kind of ideology, which reveals information design to be carrying the flickering torch of modernism.

Information design differs from functionalism by not being an 'ism'. Like all '-isms', functionalism took its principles too far. One

5. 'The techniques of new information design are evident in many fields, in industry and marketing, in science and education, and in traffic control and orientation systems, to name only a few.' (Sutnar, 1961 [no page number]).

6. See Paul Stiff in *Information design journal* (1990, p. 95): 'Few will argue against helping consumers to become better informed. But why call it information design?'

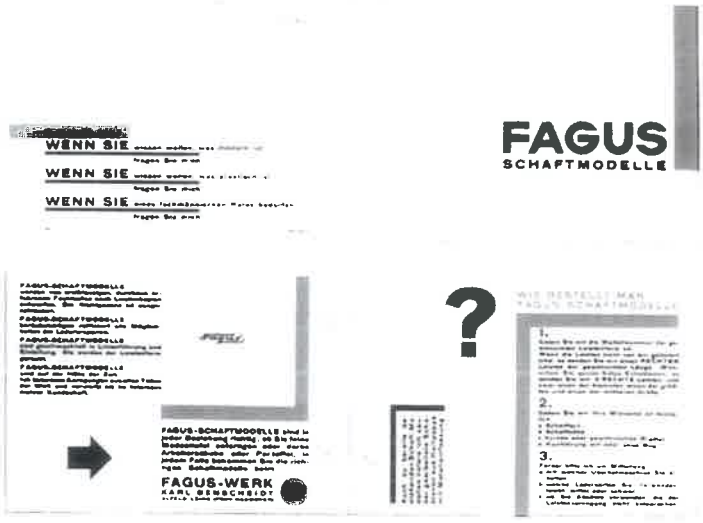
of Tschichold's contemporaries and colleagues, Paul Renner, a more cautious theorist of modern typography, recognized the dogmatic potential in the dictum 'form follows function':

> Furthermore, one cannot say that every individual form is ornament if it has no practical function, that it ceases to be ornament at the moment when it is demanded by practical purpose. Everything can have sense and meaning in different spheres of consideration. It is an error in the thinking of our era to leap from one area of thought to another by logical conclusions. Something can be purposeful *and* beautiful, but it is simply false to say that it is functional and *therefore* beautiful; or it is unfunctional and therefore ugly. (Renner, 1932, p. 54)

Functionalism and information design both seek to narrow the sphere of consideration, despite the latter embracing a multi-disciplinary approach to this end. Information design's priority is to discern the needs of users, and act upon them. So, a notion of practical functionality is central to it, although, in contrast to 1920s functionalism, the emphasis is now on the reader instead of on the intentions of the designer. But the criterion for judging design are similarly narrowed to a consideration of function – of clarity in communication. Tschichold later came to reject the one-sided assertions of his youthful self as expressed in *The new typography*. He drew parallels between the dogma of New Typography and that of Nazism, of which he had become a victim in 1933, when he was arrested a s a 'cultural Bolshevik'. Tschichold even went so far as to call himself a 'Führer' of New Typography. This has struck many as an over-reaction, but there is sense in his view. New Typography was an absolutism – the young Tschichold could only countenance one way of typographic designing. Because of his dogmatic views, and an easily drawn link to Communism, Tschichold lost his freedom temporarily to another absolutism on the other side of the political spectrum – Fascism. This may be almost insulting in its simplification of the matter, but I believe that Tschichold was right when he saw a common element in all restrictive and repressive tendencies. Of course, typography is a rather different game to power politics, but it certainly cannot claim ideological neutrality. And neither can information design, which still bears the watermark of functionalism.

Yet, a recognition of the credo of information design does not imply a rejection of it. All means of making typography work better are surely welcome. But an approach which borrows from science can only be one among many. Graphic design is not a science, and it is impossible to say in many cases with any authority that a certain design is best. For example, who can really tell what effect a minimal difference in typesize or colour may have on a diversity of readers?

Tschichold's text is weakest when addressing specific visual features of typography. Witness his rationalization of the stylistic devices in a piece of Herbert Bayer's typographic design, (illustrated below):



Prospectus by Herbert Bayer for the Fagus firm, as illustrated in *The new typography*. Above are pages 4 and 1, and below are pages 2 and 3.

The large white space on page 2 with the small Fagus trade mark is made noticeable by the red right-angle. The arrow on the same page is used logically as well as harmoniously to contrast with the grey of the type; and the large query sign on page 3, besides by its nature indicating something important, makes a strong and pure visual contribution. And the red circle on page 2 is not decorative but functional; it calls attention to the firm's details. (p. 156)

This is manifestly unconvincing, and, whilst having the requisite tone of objectivity, it is a purely subjective description. Such a detailed analysis, of which there are few in the book, undermines the theory in the rest of Tschichold's text, and makes the reader suspect that, if you boil down modernist typography to its essentials, you are left with nothing more than a passing style. One cannot even argue that Tschichold's vocabulary for describing typography was underdeveloped; designers today are hardly more convincing when explaining the visual attributes of their work. Indeed, the above passage by Tschichold can be seen as the beginnings of the pretentious babble offered in coffee-table books about graphic design of today.

So, a central dilemma at the heart of modernist typography still persists: can style be divorced from function? There was no room for discussion of style in functionalism, which had a predetermined style attached to it. Information design seemingly rejects style altogether, but, in adopting the mantle of functional design, does it also inherit a default notion of stripped-down, modernist aestheticism? This is perhaps an unresolveable issue, but worth raising nevertheless.

References

Hochuli, Jost & Robin Kinross (1996) *Designing books: practice and theory*. London: Hyphen Press

Kinross, Robin (1985) The rhetoric of neutrality. *Design issues*, 2 (1), 18–30. (Reprinted in *Design discourse: history, theory, criticism*, ed. V. Margolin, 131–143. Chicago: University of Chicago Press, 1989)

Morison, Stanley (1930) First principles of typography. In Ruari McLean (ed.) (1995) *Typographers on type*. London: Lund Humphries

Rasch, Heinz and Bodo (eds.) (1930) *Gefesselter Blick*. Reprint 1966, Baden: Lars Müller

Renner, Paul (1932) *Kulturbolschewismus?* Zurich: Eugen Rentsch Verlag

Renner, Paul (1939) *Die Kunst der Typographie*. Berlin: Frenzel & Engelbrecher

Stiff, Paul (1990) Small worlds: The fourth information design conference. *Information design journal*, 6, 93–99.

Sutnar, Ladislav (1961) *Visual design in action*. New York: Hastings House.

Tschichold, Jan (1937) New Typography. *Circle: international survey of constructive art*. London: Faber & Faber

Waller, Robert (1979) Functional information design: research and practice. *Information design journal*, 1, 43–50