Blessed be the inventor of the printing press. It is to him that we owe this wondrous revolution.
Louis Lavicomterie, 1792

Standardization, instead of individualization.
Cheap books, instead of private-press editions.
Active literature, instead of passive leather bindings.
Jan Tschichold, 1930

It is through more reason – not less – that the wounds dealt to the irrational totality of humankind by the instrument that is reason can be healed.
T. W. Adorno, 1953

1. Louis Lavicomterie de Saint-Samson, *La République sans impôts*, Paris: ICS, 1792, quoted by G. Kates, *The 'Cercle Social', the Girondins, and the French Revolution*, Princeton NJ: Princeton University Press, 1985, p.178.
2. Tschichold, *Eine Stunde Druckgestaltung*, p.7.
3. T. W. Adorno, 'Der artist als Statthalter', in his *Noten zur Literatur 1*, Frankfurt: Suhrkamp, 1958, p.184; quoted here (with modifications) from its translation in *Notes to literature*, vol.1, New York: Columbia University Press, 1991, p.103.

1 Modern typography

Modern typography?

If the printing process was one of the main facilitators in the development of the modern world, then the phrase 'modern typography' may be an unnecessary duplication of sense. Is not *all* typography modern?[1] Certainly a cultural historian might see 1450, the moment of Gutenberg's movable type, as falling near to the intersection of 'late medieval' and 'early modern'. And, whatever is suggested by large schemes of periodization, the nature of the new process seems to claim the characteristics of modernity. It was a process of mass-production: texts and images could now be made in quantity and in identical copies. Though manuscript texts had been produced as duplicates in sizeable numbers, printing introduced fundamental changes: in quantity, in speed of production, and above all in ensuring the identical nature of the information in copies (allowing for variations of presswork and changes to a text within a printing run). This standardization of the product was as far-reaching in its implications as any of the innovations brought by the new process. It was on the basis of shared, stable and exact knowledge that the modern world came into being.

The process itself implied and necessitated a standardization of materials. A satisfactory product depended on proper alignment and fit of characters, on evenness of printed impression, and these things depended in turn on a normalization of the dimensions of the materials. Early printers may not have had well co-ordinated materials, even within a single workshop, but the implication of such a co-ordination was there in the nature of the process. Similarly, the process suggested a division of labour, although the early printing workshops may often have been small affairs in which work-functions were shared, and although at certain times and in some places the production of manuscript texts was quite ruthlessly divided by the allocation of component parts of a text to different scribes (the 'pecia' system).

These qualifications may at least hint at the social grounding of the theme of typography. In this compressed discussion, 'typography' will inevitably tend to become an abstracted idea, shedding the human and material reality of which it is constituted. But, although social realities may

1. The argument that '"modern" typography began around 1440' was suggested by Anthony Froshaug in: 'Typography ancient and modern', *Studio International*, vol.180, no.924, 1970, pp.60–1.

qualify generalizations about the fundamental character of typography, the fact remains that writing is a single process, while printing is at least two: composition and presswork. Here lies the source of difference between a unitary activity and one that can be put out to workers who may know nothing of each other.

In these broad respects, then, printing is fundamental to the development of the modern world: as a principal means of spreading knowledge, enabling the shift from medieval attitudes to modern ones; and as itself incorporating modern characteristics, of mass-production and standardization, of specialization and division of labour.

The debate over the history of modernity will always be inconclusive.[2] Different definitions of the concept allow different locations of it, and the proper start of 'the modern' has been placed later than the time of the first printers: with steam power and industrialization, or later still, perhaps with the First World War. This book starts its discussion not at 1450, nor at 1800 nor 1900 nor 1914, but rather at around 1700, and this is a part of its argument. If modernity was implicit in printing, it was not fully or immediately realized by Gutenberg's invention. Printing enabled modernity, but evidence of recognizably modern attitudes in typography only began to emerge some 250 years after its introduction.

The decisive evidence that allows this judgement is of the readiness to articulate knowledge and consciousness. Before the time of this emergence of modern attitudes, printers certainly knew what they were doing. One can see this simply in the fact of successfully produced printed books: for the making of any such extended text requires considerable conscious planning or design. Though little evidence – drawn layouts, marked copy, imposition diagrams – survives to document this, one can surmise that these aids must have been used; one can also assume a process of copying existing formats. But this knowledge was not shared. Early printers, in keeping with the tenor of their times, surrounded their activities in secrecy: for practical reasons (to preserve commercial advantage) as well as in the quasi-magical furtherance of the 'black art'. That this epithet should have survived into this century suggests the persistent, perhaps inherent, surprise and mystery that attaches to the process of printing. Paper is passed over a nonsensical, mirror-image surface to produce – in an instant – text and images, smooth and full of meaning; and the process can be repeated again and again. However, the 'black art' has been the practice of a trade organized along masonic lines: a secretive, male preserve, stubbornly resisting change. 'The trade' appears as a principal though usually silent character in this book, as the bedrock of printing. At its best it has been a repository of solid wisdom. But it has also seemed to be an obstacle, especially to bright outsiders who have wanted to take control of the process of production and publication.

2. The literature of this debate is huge and various. For some observations from a historian of printing, see Eisenstein, *The printing press as an agent of change*, pp.683–708. See also a brief survey by H. D. L. Vervliet, 'Gutenberg or Diderot? Printing as a factor in world history', *Quaerendo*, vol.8, no.1, 1978, pp.3–28, which tends to support the thesis of the present book.

The first move in the long process of the break-down of the printing trade was the splitting of the editorial function away from the workshop and into what would become the publisher's office. With this division, printing began to be opened up: its secrets started to be articulated. One might also suggest, as a working definition, that this is the point at which 'printing' separates from 'typography'. This distinction of terms has been latent in discussion of the matter since Joseph Moxon's *Mechanick exercises* was published at the end of the seventeenth century, but has never been fully explained. To over-simplify, the difference is between inarticulate practice with the materials of production ('printing'), and conscious shaping of the product, by instruction ('typography').

One might well argue, with this distinction in mind, that 'modern typography' is indeed a duplication of sense, because when printing becomes typography is also when printing becomes modern. Printing becomes modern with the spreading of knowledge about itself: with the published description of its practices; with the classification of its materials and processes; with co-ordination of dimensions of materials, enabling their exchange and better conjunction; with the establishment of a record of its history. These things, which one begins to see in the late seventeenth century in (especially) England and France, are realizations of the implications of the process of printing: they follow from people using the means of printing to discuss that process itself. With the publication of manuals and histories of printing, with the introduction of common systems of measurement, then the 'black art' is illumined: a process that still continues.

It is as well to make explicit the obvious limitation of this book to the western world, and to typography employing Latin script. This, too, is a part of its argument, for the overlap between 'modern' and 'western' is so great as to make them synonymous. As well as its chronological structuring, the discussion follows a geographical course, moving from country to country (or culture to culture) as each seems to become significant. But the process of modernization is also one of homogenization, and national cultures come to be less distinct. Thus a more extended discussion of current developments would have to consider the situation of typography in the Far East and the effects, throughout the world, of the international manufacturing companies.

Approaches to history

The history of printing and typography has been the subject of different approaches, developed for particular purposes. One may distinguish the following leading strands (representative examples are given in the discussion of sources, chapter 14).

First, there are histories of printing. These have taken technical development as their main subject, tending to be histories of printing machinery. Printing history of this kind has been a phenomenon of the last few decades, and it has been prompted by the need to preserve and record the materials and practices of past techniques.

Bibliographical history has a longer tradition, beginning in the late nineteenth century. This is the study of printed texts and their transmission. It has been conducted as a branch of literary scholarship, taking an interest in processes of printing as the necessary material underpinning for knowledge of a literary text.

A third kind of history has recently emerged from within the ranks of professional historians, as an aspect of cultural history. This has come with the realization that printing and especially 'the book', as it is hypostatized, have been key factors in historical change. Besides this intellectual emphasis, there is the social one: the printing and publishing trades are relatively well provided with surviving documents, and examination of this material has been able to provide rich insights into past life.

The last category is the vaguest and has often been the least substantial: history of typography. Where printing history has focussed on machinery and on the trade, and has been largely produced from within the trade, typographic history has concentrated on the printed products and their design. A special field of examination here has been the history of typefaces, which has also received some attention from bibliographic historians interested in authenticating texts, but the major motivation for this specialization has come from the need to fuel the production of adapted or recreated versions of past letterforms. Typographic history has largely been produced by practising typographers, whose emergence (in this century) it has closely followed. The connection with practice has been of mixed benefit. While one may point to shining examples of the fruitful interplay of practice and historical scholarship, it would be possible to fill shelves with works crippled by an absence of historical skills and by superficial notions of design. This kind of history is the only one to recognize the aesthetic factor in printing, but it has had the tendency to do little else but view. One may deride printing history for its blindness to the visual and its fixation on details of machinery, but it has at least done its time in the archives; typographic history has tended not to get beyond the reproduction of products, with accompanying rituals of admiration and distaste.

This book belongs to the category of typographic history, though it represents an attempt to criticize the existing model for the genre. This critical effort has been conducted partly through incorporating insights from these other kinds of history and from enquiry outside typography: in architecture and design, and in historical and theoretical discussion more generally. But the opening out of typographic history can here be only a matter of hints and suggestions: its full elaboration would require years of investigation into the everyday interactions of typographers, printers, their customers, and the public at large. (And this last above all: for the major absence, in this book as in all works of typographic history, is the reader or user of printing.) A more immediate and more achievable task is the suggestion of new directions for typographic history, within its existing terms, by way of rapid outline and substantiated by necessary detail. It is this that the present essay attempts.[3]

An approach

To take the theme of the modern as central at once questions the prevailing pattern of typographic history. This pattern has been most evident in Britain, but Britain has been the main home of this history and an exporter of it. The norm for existing history is traditional typography, so conceived; modern typography, where it is recognized, is isolated as 'modernist' and then treated, briefly, as an eccentricity. Modernist typography is held to be an incursion of artists blundering into the quiet preserves of book-printing and there violating the wisdom of tradition and convention. (The assumption, usually unspoken, that all typography is book typography is another characteristic of existing typographic history.) This view, expressed most clearly and influentially by Stanley Morison, has come to colour all discussions of the subject, even the few extended treatments of modern or modernist typography. Thus books about 'the pioneers of modern typography' or 'Bauhaus typography' situate their subjects in a vacuum, without historical precedent and without relation to the unmentioned but implied contemporary traditional norm. The hope of this book is to break down such separations, and to show that there are modern elements in what has been regarded as traditional, and that there is a tradition behind what has been taken to be just 'modernist'.

3. The necessary speed and relatively high level of the discussion have made it inappropriate to provide any extended explanation of technical processes or of the terminology of typography. Readers new to the field will find help in the plentiful introductory literature to printing and typography.

A difference of emphasis of this essay arises from a shift of attention, away from products (and the untroubled reproduction of images of them) and towards the ideas that inform production: though a strategy for dealing with the evidence of artefacts is attempted in chapter 13. The products that are discussed here are sometimes made from printed paper, sometimes they are printing presses, sometimes 'typefaces' (a troubled notion), sometimes computer languages, or whatever material the essay-discussion finds it necessary to take account of. This emphasis on ideas relates to the thesis of what constitutes modernity: the discussion, description and ordering of practice, rather than mere practice and mere products. It is clear that, on this view, the subject of such a history is as much what people have said as what has issued from their practice.

There are other aspects to the stress on ideas. It enables the historian to move closer to the processes of design than does the simple reproduction of products. This may appear odd to those who assume that the design is the product. That is a view superficial in the literal as well as metaphorical sense of the word, and which ends in equating design with ornament: the border of printers' flowers that pleasantly divert from dull text. In this essay, 'design' is understood not as a noun but as a verb: an activity and a process. And, in this light, ideas become as real as inked sheets of paper.

Such an emphasis on thought and intention also has the advantage of generating a clearer view than one that gives priority to products: a summary becomes more possible. This is something that is hard to achieve when contemplating the vast numbers of products that might conceivably be discussed, or the arbitrary and perhaps very small selection that is actually available for inspection. Limits on the material available to the typographic historian have encouraged the formation of a canon of products considered to be exemplary: images that are passed, without recourse to an original specimen, from book to book.

There are, of course, important objections to a history that would rest on ideas. People do not do what they say, and to take their words as unquestioned truth and to deduce action from words leads to idealization and falsity. And such an emphasis gives improper prominence to those who are articulate and who have access to the channels of publication.

The first of these objections will be met by a realistic attitude, which can understand the context of discussion and which knows the arbitrariness, muddle, ambitions, deceptions and naive hopes that surround any human endeavour. The goal must be a total history that relates ideas to

products, and not just to final products. These are the visible tip of designing. But beyond and beneath them is the mass of material (marked copy, layouts, dummies, and so on), which could – if it can be found – reveal the process of design and production as no finished item can. That histories of typography – not excluding the present text – should pay so little attention to intermediate products is another sign of their superficiality.

The second objection to an emphasis on ideas – that it gives undue prominence to the articulate – amounts to an objection to the positive argument of this book: that typographers need to incorporate critical reflection into their own practice. This informs the judgement implied in the selection of figures for discussion here: special attention is paid to those typographers who have been articulate about practice. The risk may then be that one replaces a cult of great creators by one of great articulators. No cults of the individual are intended here, though individual people are allowed an honourable place in this history. A way between a history of hero-worship and its opposite of a history devoid of all human presence lies in the critical examination of individual cases. Merely to utter is not enough: what is said has to be evaluated. This argument does not suggest that writing about the activity is a necessary qualification for its proper practice. But it does assert that enquiry, reflection, discussion, are activities that enhance designing and making. The thought that accompanies making need not issue as printed or written words, nor even as speech, but it may still be traced in the product. In this way products can themselves be 'articulate', though their makers may not have spoken. One thinks of certain pre-industrial punchcutters, or of countless unknown compositors.

This essay, then, does have a certain polemical purpose in its preference for the articulate. And, in the same spirit, it assumes that value lies in editorial quality, in the content of text and images, in their accurate transmission, and that notions of 'beauty' are best left undiscussed, or, at least, construed in the light of these primary tasks of printing. This may explain the selection of subjects discussed here, and the short shrift given to some of the staple subjects of typographic history – Baskerville, Bodoni, the post-Kelmscott private presses – whose reputation rests on superfluous books of doubtful textual accuracy, meant for viewing rather than for reading, or as investments. The cult of 'fine printing', with its fetish of the title-page, has been questioned often enough, and by celebrated typographers (Jan Tschichold, Eric Gill), but it seems to persist.

Faced with its complacent monuments, one turns rather to work that shows some life.

One means of circumscribing and rooting the ideas discussed in this history is through reproduction of artefacts. This is a purpose of the illustrations that comprise the visual component of the essay. The intentions and methods in making these images are outlined in the note that follows the sequence (page 177).

The text of this essay depends very heavily on printed sources, including much material that is secondary to its subject, or is even further removed. This is not a very happy state of affairs: there is a strong risk of retailing stories that have been told (and distorted) many times before. The least an author can do is be frank about this, disclosing and discussing sources. The last chapter is devoted to this matter: it is meant to provide readers with some help in extending their knowledge, and to suggest that this book is the product of one voice in dialogue with many others. It has been written in the desire to prompt critical discussion and critical practice.

2 Enlightenment origins

The first manual

The beginnings of a separation between 'printing' and 'typography' can be located in the famous first definition of 'the typographer'. In the preface to his *Mechanick exercises: or the doctrine of handy-works applied to the art of printing* (1683–4), Joseph Moxon wrote: 'By a typographer, I do not mean a printer, as he is vulgarly accounted, any more than Dr Dee means a carpenter or mason to be an architect: but by a typographer, I mean such a one, who by his own judgement, from solid reasoning within himself, can either perform, or direct others to perform from the beginning to the end, all the handy-works and physical operations relating to typographie'.[1] One could apply this sense of 'typographer' to some of the earliest printers, who, although commonly called 'printers', played a directing role, rather than working as part of a production team: Aldus Manutius and other scholar-printers would provide the clearest examples. Moxon is thus articulating a function that has its origins at the start of printing: the process was by its nature one that required a co-ordinating or overseeing figure. We are thus returned to the idea, raised in chapter 1, that printing has within it the seeds of modernity.

The importance of Moxon's definition is that it came at the opening to the first extended published discussion of printing. With the *Mechanick exercises*, printing received its first extended theoretical treatment, and thus moved out of a state of unconsciousness. The book was primarily an intensely practical manual, with minutely detailed descriptions of the operations of making, composing, and printing from, type; but the dimension of theory could not be avoided. Thus the preface included a sketch of the invention and progress of printing. For the first time, printers could acquire some sense of the history of their practice, which was thereby raised above the level of blind 'practice'. And the whole effort of describing methods of work and of formally naming mechanical parts inevitably introduced a new sense of order into the practice. As a process of multiplication and of proto-mass-production, printing might imply system and standardization, but between individual operations (typefoundries and presses) there was little or no compatability of materials. The essential modularity of printing could not be fully realized, and

1. Moxon, *Mechanick exercises*, pp.11–12 (spelling and punctuation of the edition retained). Moxon's reference is to John Dee and the preface to Dee's edition of Euclid (1570).