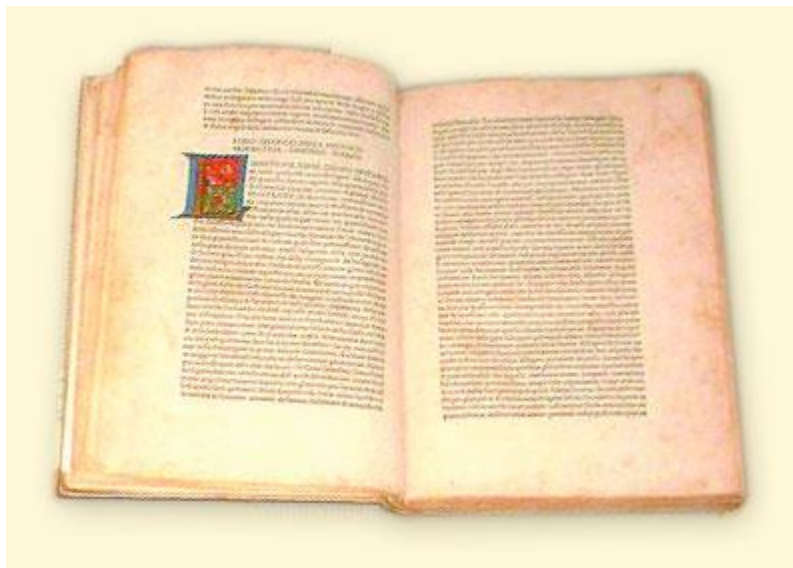


Incunabula to e-book

Jayagovindan Menon

Since the way we read has not changed much for centuries, the way of books also hasn't changed... But to what extent should book design be confined to conventions of the past?

Communication aspect apart, printing in its early years was an impressive art and craft. At one level it gave a child-like fancy in stamping, playing with ink and duplicating while on a higher level the letter forms sculptured in steel provided an aesthetic satisfaction of form and texture. The invention of movable type made printing practical and brought books closer to people. Much of the conventions and style in book design were established in a relatively short span between 1456-1500, often referred to as the incunabulum (Latin for 'cradle'). The books originated in this period were called incunabula.



Journey of books in print

The works of incunabulum showed an astonishing brilliance in craft, particularly in the refinement of Roman alphabet and crafting ornamental woodcut initials and borders. Many of the books, starting with Gutenberg's Bible (1456), The Mainz Psalter by Fust and Schaffer (1457), Euclid by Erhard Ratdolt (1482), Poliphilus by Aldus Manutius (1499), served as models for book designers for the next 500 years. For the bookmakers of the incunabulum, works of the scribes were the inspiration. The printed pages looked as elaborate in decoration as the handwritten pages.

One could observe the development of grid in the two-column Gutenberg Bible set in 42 lines for each column. In 1509, Fra Luca Pacioli's *De Divina Proportione* (divine proportion) was published with illustrations by Leonardo da Vinci. This work revived interest in the classic proportion and

golden section that influenced book designers through the centuries in determining the ideal page proportion and relation between print area and the margins around.

The principle of symmetry -- mirror image of print area on facing pages of a book – also had its beginning from early days. The heavy letterpress impression created a strike-through that will be visible on the back of the page. The solution to this problem was to print text block on the back of the page in a matching format. This resulted in a mirror-like image with equal amount of margins on facing pages. Strike through ceased to be a problem with offset printing but show-through is because of thinner stock of paper used for most of the contemporary books. Hence symmetrical page arrangement becomes functionally suitable even today.

Books become popular

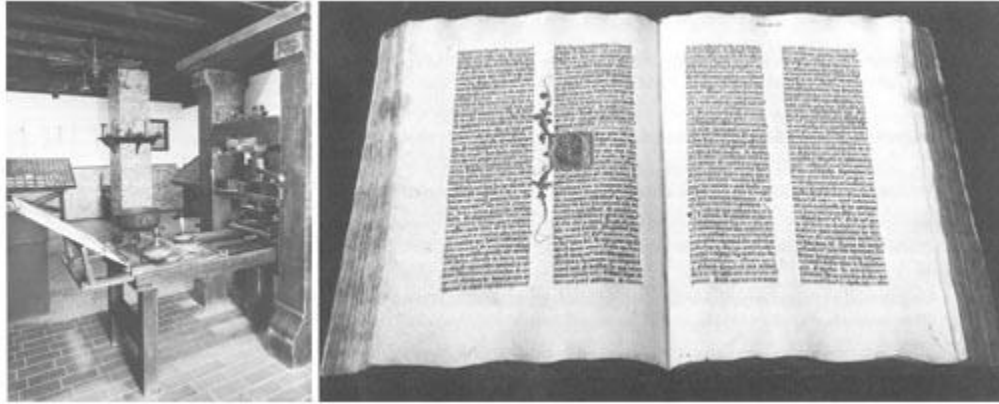
The book made resurgence in thought and spread of knowledge. By 16th century, printing spread rapidly. It made possible for presses to easily multiply copies of a complete edition with uniform design elements that made the printed book different in appearance from the handwritten version of the scribes. By 17th and 18th century, printing spread far and wide. But books were generally inferior in appearance to their counterparts in the 16th century. Significantly, type design improved in 18th century through the works of William Caslon, John Baskerville and Giambattista Bodoni. Introduction of lithographic process for reproducing illustrations was another important development. This process paved the way for the development of offset printing later.

Machine age

The 19th century was marked by mechanisation of type composition using Linotype and Monotype machines. The new machines imposed severe limitations on type design as well as the number and varieties of types that can be used in a work. The decorative type extravaganza in books gave way to straightforward machine-made pages. The trade-off was speed and economy. This invention had much to do with the way 20th century books looked.

The nostalgia of the foregone era in typography and book design was not easy to curb. William Morris, an influential English typographer of the Art and Craft Movement felt that industrial revolution killed man's joy in his work and that mechanisation was an instrument in the destruction of handicraft and in turn brought ugliness to the craft. Morris established Kelmscott Press in 1891. In its short span of operation between 1891-1896, he designed new hand-cut typefaces and decorative woodcut initials and borders for his page designs. In an attempt to recreate the 15th century craft, which he admired so much, Morris commissioned manufacture of handmade paper, rich black ink and printed 52 books using hand press and hand binding. A major work of this movement was Chaucer (1896), an elaborate edition with richly decorated pages reminiscent of the German incunabula. Chaucer was more to be looked at than to be read, like the coffee-table books of our time.

In the later years many private presses in Kelmscott model were established in England, Germany, Scandinavian countries and the United States. These efforts could not be sustained in a commercial world. Meanwhile, book design was gradually passing from the printer to the publisher, as the former became more of an industrialist and much less of a craftsman.



In the 20th century, mechanisation of printing was rampant with the introduction of high speed offset presses and colour lithography, allowing substantial saving in cost of production. But the most startling of the machine age process was the introduction of electronic technology, directly through computers and indirectly through television. The digital age revolutionised the way of working and television brought down the novelty of the book as a medium of communication. Apart from providing a platform for experimentation, the new technology once again brought back art and craft closer.

Crafting the form

A significant change that occurred on account of mechanisation and large scale production is the fragmentation of key activities in book making. Against printer taking sole charge of book production in the middle Ages, publishing in the 20th century is conducted by author, editor, designer, typesetter, reprographer and printer (who usually took care of binding and finishing as well). This fragmentation made it necessary to have certain set standards and styles in book design, which made communication among the players less difficult.

Consistency is often considered as the golden rule in publishing. This is true in the treatment of text styling and design. A book designer's concern is the total design that covers format, extent, typography, materials, reproduction, printing and finishing. All the necessary guidelines and standards are set in the designer's specification sheet.

Styling content

The first mark made on an author's typescript is to do with content styling. This is by far the most invisible piece of work in a printed book. Text styling will mostly be done by a copy editor and many of its aspects are to do with the visual representation of the written word in print. Styling takes care of issues relating to language, capitalisation, italisation, small capitals, treatment of references, footnotes, line breaks in setting poetry or mathematical equations and so on. The guiding principle is consistency and the prescriptions in Chicago Manual of Style.

Trim size

Books generally take the form of a rectangle, conforming close to the golden section – a Renaissance concept of ideal proportion. Book sizes today are determined by paper sizes available in the market and capacity of printing machines. A large machine prints 16/32 pages on one sheet, folded into a page size forming a section in the book. The closer the paper size, book size and press capacity match the more efficient and cost effective will the operation be.

Margins

There are several classical models to construct type area within a page. The white spaces around the type area are the margins. Margins and type area define the symmetry in book design. Normally books will have a narrow margin at the gutter (axis) to integrate the two pages in a double spread. The bottom margin as a convention will be the widest, to accommodate reader's thumb while holding the book. It is also a practice to leave more outer margin than the top, again to accommodate reader's fingers if he chose to hold the book using both hands (particularly if the books are in larger format).

Typography

A book designer will generally be concerned with overall typographic treatment, or macro-typography, leaving the details or micro-typography of setting text to the typesetter. A good typesetter will have built-in standards on spacing characters, words and lines. Aspects of macro-typography within a book include determination of type area, choice of text, heading and display type, organisation of illustrations, captions, headings title page, front matter, back matter and other typographic elements.

Serif types are considered best suited for long reading and hence ideal for body type. In practice, personal preferences of the designer play an important role in the choice of types. In pre-computer days, printers used only a hand few accepted book fonts. The printer provided specimen pages of at least a double spread for approval before composition of the entire book starts. But with dtp availability of an enormous array of types sometimes makes the choice of type difficult. Designers often order passages set in several typefaces from the typesetters to facilitate typographical judgment. Books with continuous flowing text will pose much less problem than the complex illustrated, academic or technical books with many hierarchies. However, there are some common guidelines that publishers follow in the treatment of various text elements.

Paragraphs are mostly indented by 1 pica (1/6 of an inch) from the left. This follows an interesting convention. Medieval books simply introduced a symbol (P), often printed in red, in the middle of text to indicate a new paragraph. By the late middle ages, a paragraph started as a new line, still preceded by the symbol in red. Type composers left a blank space for the symbol and a lubricator (rub rum, Latin for red) hand printed the coloured symbol. But sometimes rubrication did not take place, and the blank space at the beginning of the sentence suggested a new para. Even now, the most common way to indicate paragraph is by indentation. It is also common to see paragraphs beginning with blunt left, usually with one line space above.

Extracts or block quotation in a book need special treatment to quickly differentiate them from the main text. A standard practice is to indent the whole extract, sometimes in a smaller point size than the text or with less leading. Quotation marks are omitted from an extract and one line space provide on top and bottom.

Display types in a book are those used for chapter titles and subheadings. Chapter titles and headings follow a variation of the text font or sometimes a sanserif font. The length of chapter

titles throughout the book determines the choice of font size. If the chapter titles are uniformly short the choice will be easier to make than if the shortest title is just two words and the longest, say, thirteen words. Typography of headings depends on the levels of heading and subheading. Bold, small caps and italics are some of the ways to indicate various levels of headings.

Running heads and folio are treated as complementary elements in a book. A running head is normally found on top of the text block in a smaller size than the text type, either cantered or aligned to left on a verso page and right on a recto page in line with the folio. Usually the book title appears on the verso page and the chapter title on the recto page. In case of a long book title or chapter title, a short edited version is used. Running heads are very useful in a complex and lengthy book to help easy navigation.

Front matter

Front matter or prelim pages consist of half title, title, title verso (copyright), dedication, contents, acknowledgements, preface and so on. These pages are numbered separately, usually in roman numbers, from the main text. Readers spend least time on these pages, but the designers spend quite some time especially on the title page. In terms of design, the prelims set the tone for the entire book.

Half title or bastard title page originally protected the title page from getting dirty when books were sold unbound. Victorian books used relatively small types (often not more than twice the size of text type) for setting half title and title pages. The title was set in full caps with appropriate letter spaces and all elements centered to the page. It was expensive to cast and stock large metal types. Book printers of the past made a virtue of the situation by avoiding the use of large letters altogether in a book. These traditions can still be found in books of our time.

Back matter

References, endnotes, bibliography and index makes up the back matter in a book. Most books of today avoid footnotes to facilitate faster and flexible page layout and dump footnotes at the end of a chapter or the book. Though a dis-service to a reader, this practice makes the typesetter's job easier.

Specification sheet

Last but not least, preparation of the specification sheet rounds-up the design process. A well-written specification sheet communicate the design nitty-gritty clearly to the typesetter and the printer. This document deals with all design aspects of elements in a book. For the designer, writing specification sheet is an opportunity to check rationality and consistency of his design approach.



A portable piece of art

In the world of book publishing, one assumes that a book is for reading. Since the way we read has not changed much for centuries, the way of books also hasn't changed for long. The basic issues still revolved around legibility, readability, format, and symmetry/asymmetry of pages. To take the single question of legibility, are those classic books of the incunabulum "legible" to today's readers? Baskerville, one of the most accepted typefaces for long text today, was considered ugly and unreadable in 1757. Legibility and readability (they are two different things) are a matter of getting used to the style and there cannot be any hard and fast rule about it. This also applies to the way we read. Straight forward liner reading is not the only way of reading as the experience of Arabic and Japanese or Chinese readers will suggest.

So, to what extent book design should be governed by conventions of the past? There can be an altogether different approach to book design and typography beyond the confines of convention. Herb Lubalin and Quentin Fiore show us two different approaches -- both fascinating and commercially successful. Lubalin treated words as pictures adding splendid visual qualities to typography. While Fiore found expression in innovative ways of blending images and words. If sales figures can be a measure of wide social acceptance, the books Fiore designed -- *Medium is the Message* (Marshall McLuhan) and *I seem to be a Verb* (Buckminster Fuller) -- sold a million copies and continue to be in demand. More than being a successful publishing experiment, these books helped to position author and designer in equal footing and to blur the formal publishing hierarchies in editorial, design and production

functions.

There cannot be any argument about the fact that a book is to be read. It is also to be understood and even experienced. A book is also to be seen, to be felt and to be showcased in the drawing room! In this sense 'book' is a very peculiar art form combining features of sculpture, calligraphy and fine art. It is a collection of spaces within a space and can mix text and image to produce a portable and durable form of art..