

# PRINTING TODAY

(with special reference to Bengali Scripts)

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Printing today is both culturally and commercially essential to human life and progress. Consider how a modern man is served by it at almost every moment of the day. The moment you get up from bed, you see the coloured print in the bedroom wall, you enter the bathroom to use the toothpaste from a printed tube that was originally enclosed in a printed carton; you find the daily newspaper on the breakfast table and you begin your meal with a cereal from a printed packet; your letters (with printed stamp on) include perhaps, some printed circulars or a demand note for taxes or some other printed bill. Supposing you are a daily railway passenger, you find posters, window show cards and other printed bills etc. on way to the station, and the daily ticket or seapon ticket that you require or one of the lakhs of bus/tram tickets issued daily by the C.S.T.C. or C.T.C. are also printed. On your arrival at the office you are to deal with several kinds of printed stationery. At lunch you choose meal from a printed menu and pay the printed bill. On your way home you perhaps purchase magazine for your wife or attend a meeting for which you got printed invitation card. After dinner you settle down with a book. You may now, doubtless be able to multiply these instances of an average man's daily contact with printing. So efficiently are you served by the printed word that the absence of the daily newspaper, for example, almost certainly be ascribed to some fault in the delivery service of the local newsagent than to a breakdown in any of the highly specialized process which went to its production from the electric teleprinter that receives the news from the news agencies to the Rotary press

roaring at 20/25 thousand revolution and producing 45/50 thousand copies in an hour.

The printing industry today consists of three main groups—book, newspaper and periodical and jobbing or general printing.

Every kind of the printed matter is produced by one or other of the following three basic processes:—

1) The intaglio process, whereby the image is etched or engraved into a smooth copper plate or cylinder. In order to obtain copies of the engraved image, the whole of the surface is covered with a film of ink. The surface is then wiped clean, either by hand or mechanical means, leaving the ink only in the engraved interstices. The image is then transferred to the paper or other suitable material by means of a cylindrical impression. This process includes etchings, copper-plate printing and photogravure. This process is in fact the oldest of all the printing processes.

Suitable for work of all kinds which includes reproduction of photographs or drawings in gradation in monochrome or colour.

Advantages — A rich intensity confined with a delicacy in the high lights. The screen is almost invisible, thereby giving a photographic effect. Considerable latitude in choice of paper.

Limiting factors — Comparatively expensive for short runs excepting from plates. It lacks the sharp, crisp detail sometimes required in high grade letterpress printing.

2. The lithographic or planographic process where the surface of a smooth stone or piece

of sheet metal is prepared and made chemically clean and an image is drawn, transferred or photographed on to it. The plate or stone is alternately covered with a film of water, which adheres to the clear portions of the surface, and a film of greasy ink, which adheres only to the image and is repelled by the water already on those parts of the surface represented by the clear spaces in the finished print.

The lithographic process is divided into two heads — Direct lithography and offset lithography.

Direct lithography suitable for — full colour posters, show cards, cartons, labels, containers etc.

Offset lithography — suitable for show cards, packets and containers, posters, illustrated sales literature and display matter, Reproduction of pencil sketches and wash illustration. Tin printing etc.

Advantages — Economical duplication when long run are required. Full nice colour effects. Offset lithography will normally provide better impression on rough and unfinished papers with considerable higher output.

Limiting factors — The sharp crispness of letterpress is not possible, especially in type printing, although the results produced by the deep-etch method compare very favourably.

3. The letterpress process, where a film of ink is placed upon a relief surface, representing the image, the ink then being transferred direct to the paper or other substance by means of a flat or cylindrical impression surface.

Suitable for type matter and line subjects in black or colours. Halftone and three and four-colour blocks on suitable paper.

Advantages — Most widely used method. Very flexible for type arrangement or corrections particularly when alterations are

necessary during a run. Illustration work of all kinds is reproduced with great clarity.

Limiting factor — Illustration on non-coated paper must be selected with care and suitable blocks used.

The primary duty of printing, being a process of making a number of copies, is to disseminate, widely and cheaply, every kind of information and knowledge. It has been said that printing is the most responsible of our social, industrial and intellectual mechanisms and that it should most disciplined and most rational.

There are other two types of printing processes also but not so much in use like the other processes. They are —

(1) Silk screen printing and (2) Collotype.

Silk screen printing — This is comparatively a new process and is being extensively used for production of window displays, show cards, posters etc.

Collotype — A photo mechanical process, depending partly on the lithographic principle on which pictures in continuous tones can be reproduced without the use of cross line screen.

Now according to the principle by which impression is obtained, Printing machines may be classified into three kinds: (a) Platen machine, (b) Cylinder machine and (1) Rotary machine.

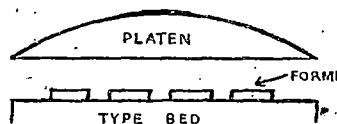


Fig. 1.

Platen machine — Where two flat surfaces are brought into contact this is usually referred to as the Platen method. The forme and the impression surface may be either in a horizontal or vertical position. By this method the whole of the forme is under impression at the same time. Fig. 1.

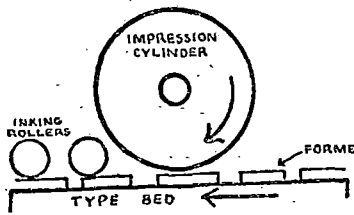


Fig. 2.

Cylinder machine — Where the forme is placed on a floorbed and the impression is obtained by means of a cylinder which turns on it. Here the impression is taken in a continuous succession of relatively narrow strips. Fig. 2.

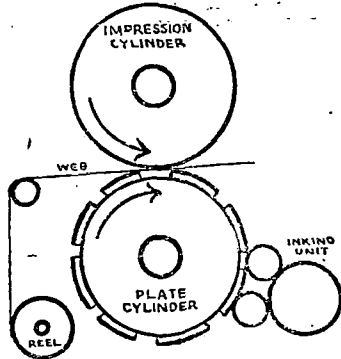


Fig. 3.

Rotary Machine — The better development where two cylinders are used one of which carries a curved plate specially made to fit the particular cylinder and other having the same circumference as the surface of the plate. As both these cylinders are continuously revolving in inverse directions, with the paper passing between them very high speed can be attained. Rotary machine employ this principle. Fig. 3.

Now whatever is the printing process or whatever is the printing machine good printing is attributed to good typesetting and good blocks (line or half-tone).

Even if we use the best quality paper and ink, best printing won't be possible if type matter, layouts and designs are not

properly done or if old styled types are used. There has been much improvement in the type faces in various languages both of hand composition and mechanical composition during the last few years.

“Printing” says Bodoni in the preface to his type specimen book, the *Manuale Typografico* of 1818, “is the final outcome of man’s most beautiful, ingenious, and useful invention that I mean of writing.....” Calligraphy is, of course, not the only craft that has influenced the form of the printed letter, and even the earliest type letters are not derived wholly from written forms, but also from a parallel tradition of letters cut in stone and metal. Nevertheless, the early printer’s aim was to produce a printed book which resembled the hand written book as closely as possible—the form of letter used in the first books almost invariably follows the contemporary manuscript letter of its place of origin.

The invention of printing did not, then, produce a radical change in the style of letters because the early printer regarded printing as an imitation evolution rather than a new process requiring its appropriate forms.

All our printed letters are derived from the capital letters used by the Romans — the only alphabet that they used. The small letters (a, b, c, d etc.) were evolved from these capital letters.

The revivals of Roman types dates back from 1470. Popularly named type faces are Jenson, Garamond, Dyck, Baskerville, Bodoni, Bell, The times, Gillsans, Times Roman, Century etc. etc.

There has been much improvement in the type faces in various other languages both in hand composition and mechanical composition during the last few years. As far as we could gather printing in Bengali scripts was first done sometime in the middle of nineteenth century and till 1937 all books and newspapers in Bengali were done by

hand types. Popular faces which are still in use are small Pica, Pica, Borguois, Bharati, Sreelekha, Bichitra, Rupashree, Debasree etc. etc.

We feel proud that one of the Bengali daily newspapers (Ananda Bazar Patrika) is the highest circulated daily of all the dailies in India and that has been possible due to quick composition in Linotype machine etc. in Bengali and quick printing on high speed Rotary. In the history of Bengali literatures and newspapers/periodicals name of late Suresh Ch. Mazumder one of the founders of A.B.P. will remain written in golden letters for introducing mechanical composition by way of converting English Linotype keyboard into Bengali keyboard. A new era

came in the field of Bengali newspapers printings since the year 1937. Linotype machines in other languages followed this Bengali Linotype machines. Output by a Linotype machine is equivalent to output of eight compositors. By converting the Bengali keyboard the customary uses of nearly three hundred fifty scripts have been reduced to hundred and twenty four scripts. The complicated joint-letter were further simplified by the renowned literator and Associate Editor of A.B.P. Sri Santosh Kumar Ghosh for quick production. His name also will remain written in the pages of history of newspaper printing industry.

We still hope further improvement in language scripts specially the Bengali scripts.