

# THE ART OF ADVERTISING

5 March – 31 August 2020



## A BRIEF GUIDE TO **PRINTING PROCESSES** IN THE EXHIBITION

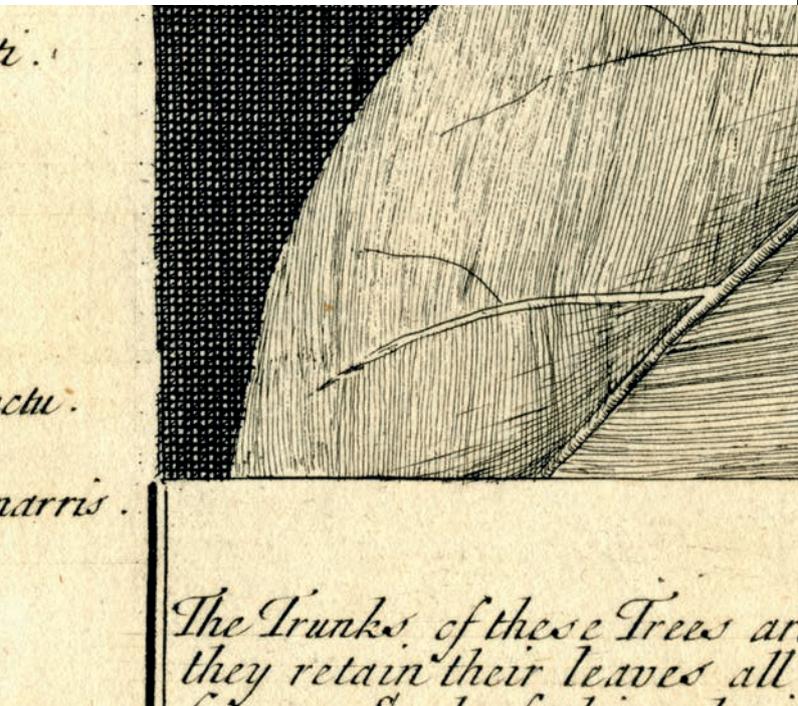
**I**f we look at printed images, particularly historic images, under a magnifying glass we see an astonishing array of dots, dashes and lines. These are the result of inking and then printing marks that were originally made – for the most part by hand – on wood, copper and stone or, in later years, by photographic means. These marks help us work out the particular printing process or processes used.

The items shown in this exhibition are the result of an extraordinary array of different processes and reveal how the art of the printer was essential to the art of advertising.

*The following processes are illustrated in the first display case*

# 1 WOODCUT

Woodcut is the oldest of the processes used for printing images. Parts of a wood block are removed by gouges and knives, leaving the areas to be printed standing in relief so that they can be inked and printed, usually on a press. Though woodcutting was capable of refined images, by the early 19th century it was mainly used for relatively crude popular work. Wood blocks were capable of withstanding long print runs and could be printed along with type.



# 2 COPPER ENGRAVING AND ETCHING

In copper engraving and etching the print is taken from hollowed-out marks on a copper plate. These marks were inscribed through a coating that resists acid, and then subjected to etching, or physically engraved into the copper with a tool known as a burin. Often the plate was first etched and then engraved. To take a print, ink is forced into the recessed lines, and the surface cleaned of ink. A sheet of paper is laid on top of the plate and pressure from the printing

press forces the ink out of the hollows. The process was capable of great delicacy, although the soft copper plate would wear out over time. Text could be engraved as part of the plate, as in this example, but if type was needed, the two had to be printed separately.



# 3 WOOD-ENGRAVING

Wood-engraving, developed in the late 18th century, allowed highly-skilled engravers to simulate a range of tones by means of very much finer lines than could be produced by woodcutting. Their technique involved working on slices of wood cut across the grain using a variety of steel tools, such as the graver or burin. As in woodcutting, it is the parts of the block that are not cut away that print. Blocks could withstand long print runs and were frequently printed along with type. Such blocks could be cloned mechanically, making it possible to speed up production.



# 4 LITHOGRAPHY

Lithography was invented in the final years of the 18th century. The process is a chemical one which relies on the principle that water and grease do not mix, rather than difference of relief (as in woodcut, wood-engraving and copper engraving). First a design is made on stone (later a metal plate) in greasy ink or crayon or, alternatively, on specially prepared paper for transferring to such a surface. The process is extremely versatile, and allows for impressions from type to be transferred to the printing surface. Taking a print involves two procedures: dampening the stone or plate and then rolling up its surface with greasy printing ink. The greasy ink is attracted by the greasy marks and repelled by the dampened surface.



# 5 COLOUR WOOD-ENGRAVING

Colour printing began to be widely used in commercial printing from the second half of the 1830s. One approach was to use a set of wood-engraved blocks,

each one dedicated to a particular colour. The engraver could produce a range of tones for each colour through lines and other marks engraved on the wood blocks. When printed one after the other the colours blended visually. In this example, just four blocks – red, yellow, blue and black – create a range of colours, shades and tones.



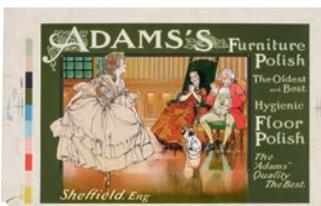
# 6 CHROMOLITHOGRAPHY

An alternative approach to colour wood-engraving was chromolithography, which became the main means of producing coloured advertising after the introduction of machine printing in the late 1860s. The design was drawn by a team of artists on a set of stones (later plates), each one devoted to a particular colour and

parts of the image. These colours were then printed one after another so that they blended visually.

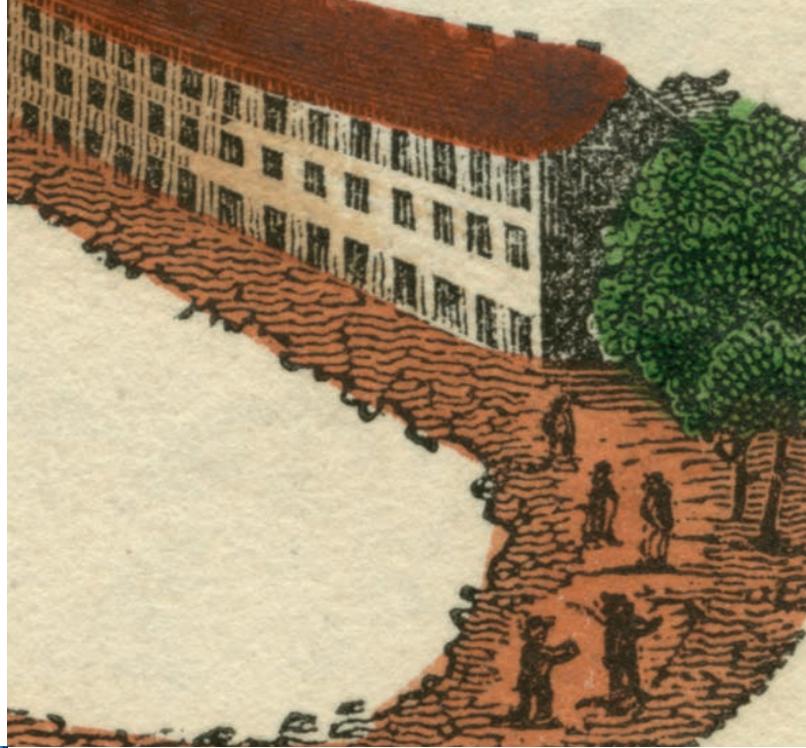
The variety of lithographic mark-making, and the far greater number of colours used (often 8 to 15 in advertising) meant that the end product could be richer and more

subtle than a colour wood-engraving. In this print the colours are shown separately in the margin.



# 7 HAND COLOURING

Colour printing did not immediately end hand colouring in advertising: both methods continued until print runs grew so large that hand colouring became impractical. In this example of the 1820s, all the colour has been added by hand.



# 8 PHOTOMECHANICAL PRINTING IN MONOCHROME

Photographic methods began to influence commercial printing in the closing decades of the 19th century.

They depended on two developments. One (affecting relief printing only) was controlling the etching of the metal when lowering the unwanted parts. The other was the manufacture of crossed-line screens that could break down the continuous tones of an image into binary dots of various sizes, small ones in light areas, larger ones in dark areas. The main limitation of photomechanical printing in relief

was that the resolution of the grid of dots limited the kind of paper used, the commercial norm being 133 dots to the inch (52.36 dots to the cm).



# 9 PHOTOMECHANICAL PRINTING IN COLOUR

In the 1890s, after decades of experimentation, colour and photography came together in the form of photomechanical printing in colour. The constituent hues of the original to be reproduced were separated by means of colour filters (red for cyan, green for magenta, and blue for yellow). A combination of three colours could produce an acceptable colour image. Black was sometimes added to produce what would be called CMYK today, but printing in three colours remained the norm for the first few decades of the 20th century. Such methods of colour printing were applied to lithography a little later than to relief printing.

