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## PRINTING DEPARTMENT

### fourth floor

#### **Three centuries of graphics industry**

Printed matter: we can't imagine life without it. For centuries, books, posters and cards have been rolling off the presses. Faster and faster, more and more. They convey knowledge, information and advertisements or remind us of a special occasion.

This exhibition takes you through Belgian print shops, from just before the Industrial Revolution to the twenty-first century. An ode to printers, their craftsmanship and their creativity. Fascinating photos, elegant letters and imposing printing presses give you a taste of the graphic evolutions and revolutions.

Make your own minizine, whilst strolling through the exhibition. Discover our print shop, where passionate craftsmen regularly operate the presses and typesetting machines. Printing heritage lives on: in a multitude of objects, minds and hands.

#### **The evolution of the printing trade**

Around 1450, Johannes Gutenberg first uses metal moveable type. Ingenious, because from now on, the letters can be reused. Thus, Gutenberg can set and print texts faster than ever. The art of printing spreads throughout Europe like wildfire. Until the eighteenth century, artisanal print shops continue to make use of Gutenberg's techniques.

The Industrial Revolution accelerates everything. Demand for printing booms. Knowledge and ideas must be disseminated. Printed advertising introduces people to new products. Newspapers and pamphlets keep people apprised of national and international news. Readership expands. Communication moves up a notch.

More and more printers set up shop. Faster, bigger and better printing presses answer the rising demand. Cast iron presses replace their wooden predecessors. Stanhope's metal press is groundbreaking.

It is no coincidence that this technological innovation is discovered in England, the cradle of the Industrial Revolution. In Belgium, Brussels is, without a doubt, at the forefront of the graphic industry.

### **Type and typographers**

Letter by letter, line by line, the compositor compiles the text. He picks letters and punctuation marks, one by one, out of the type case. The lines of text are compiled into pages and readied for printing. Afterwards, the apprentices return the type to the type case. This is called distributing type, a boring task.

Up until the early twentieth century, each printing press requires quite a few compositors, certainly when faster presses hit the market. Inventors spend a long time looking for a way to mechanise typesetting and distribution of the letters. The Linotype is the first successful typesetting machine. It does the work of five manual typesetters.

A magical world of design and technology hides behind each type. Posters, newspapers, books: each one requires its own typeface. Typeface design and graphic design are subject to trends. Typography and art influence one another.

### **A world of imagery and colour**

The story of lithography begins with a surprising discovery in 1797. Playwright Aloys Senefelder wants to print texts and sheet music quickly and cheaply. He invents an ingenious procedure using limestone, oil-based ink and water. The parts to be printed are chemically separated from the rest.

Lithography makes it possible to print many copies of illustrations quickly. At first only in black and white, as of 1840, in colour as well. Businesses, the Church, politicians: everyone benefits from colourful printed matter pitching a message or product. Posters liven up the cityscape. Decorative packaging and labels become everyday items. Artists, too, discover lithography.

In the twentieth century, lithography gives rise to offset printing. This new planographic printing technique comes to dominate commercial printing. The principle of lithography lives on in other modern applications too, such as computer chip manufacturing.

### **Printing in full swing**

More and more people are literate. In the second half of the nineteenth century, libraries start to appear. Reading culture becomes widespread. Government, science and industry spark an appetite for knowledge and information. Demand for printed matter is booming.

Imposing cylinder and rotary presses appear. Books, journals and newspapers steadily roll off of these presses. Steam-powered machines and motors boost production. Competition between print shops is fierce. A fast working pace and long hours are the norm.

Small and medium-sized print shops focus on printed matter for special occasions and commercial purposes. A few reliable presses suffice to quickly and efficiently print notary posters, letterheads and death announcements. Sexton-printers are fixtures in many villages.

### **From lead to pixel**

The nineteen-fifties brings a period of economic growth. People can spend more money on printed matter. Companies increase their advertising budgets. Consumer society takes shape, and the graphics sector benefits from it.

Technology evolves swiftly. At Drupa, since 1951 the international trade fair for graphic machines, printers feast their eyes on innovations. Automation and electronics penetrate every step of the printing and finishing processes. From the nineteen-seventies on, relief printing is increasingly replaced by offset printing. Lead gives way to photo-typesetting. In the nineteen-eighties, the first computers appear.

The Belgian market is teeming with print shops. Aside from a few large newspaper printing works, most of them are small enterprises. Competition picks up. Mimeographs, photocopiers and even fully fledged print shops in banks and government offices stifle demand for administrative printed matter. Small village printers gradually disappear, as the trend towards larger-scale operations takes off.

### **Everything digital?**

In the twenty-first century, our world is more multimedia than ever. Online advertising, social media, websites: the communication possibilities seem endless. The graphics sector seeks to branch out in new ways. Offset remains an important technique for large print runs, for example for newspapers and magazines. Presses have anywhere from four to twelve printing units to apply different colours and editing techniques.

Since the nineteen-nineties, digital printing has become increasingly popular. Files go directly from the computer to the digital press, bypassing the need for a physical printing plate. 3D printing opens up new possibilities outside the graphics sector. Will we print everything in the future, from houses to body parts?

Rapid technological evolutions call for major investments in machinery. Fusions and upscaling enable industrial printers to stay afloat. To compete on a global scale, they specialise in niche products: printed packaging, large formats or exclusive books and magazines.