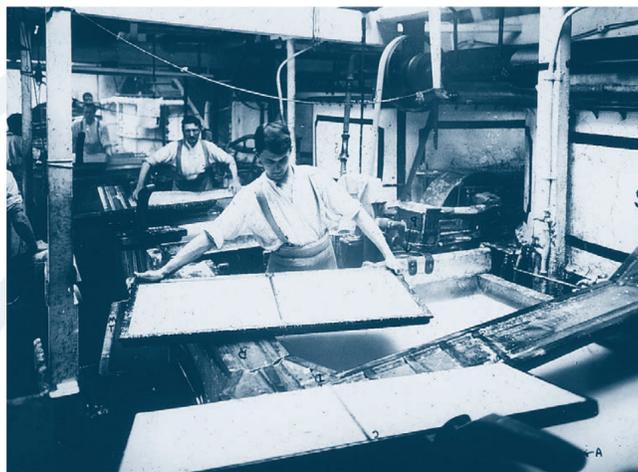
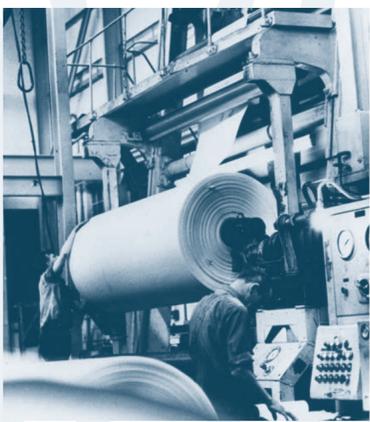
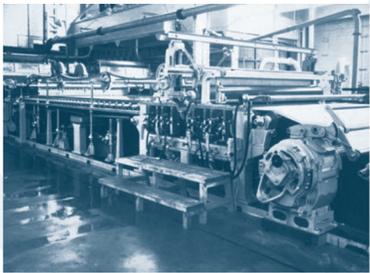
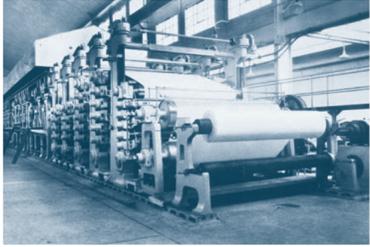


# Bringing the Page to Life

## Developments in Machinery

### Traditional Methods of Papermaking

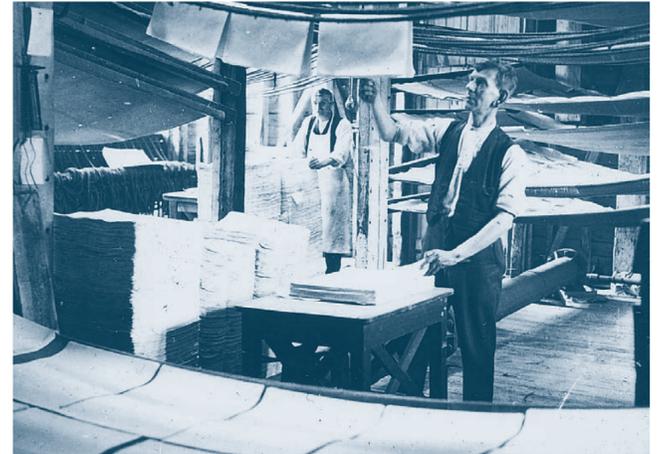
**U**ntil the introduction of mechanisation, papermaking was traditionally undertaken by hand. The early mills were often run by two men: the vatman and the coucher. The only form of machinery used was water-powered stampers that would beat the raw materials (usually rags) into pulp. The vatman would form the sheet by lowering a mould into a vat of pulp and then lifting it out and passing it to the coucher. The coucher would couch the formed sheet onto a woven cloth called a felt. The process



was then repeated. When a batch had been made, it was placed under a press to compress the paper, to squeeze out excess water, and to separate the paper from the felt. The sheets were then hung over ropes in the drying loft to dry. Papermaking by this method was a slow and laborious process that produced only small batches of paper.

### Mechanisation

The onset of the industrial revolution saw the general shift from small cottage industry to widespread mechanisation and papermaking was no exception. In 1801 the Fourdrinier papermaking machine was patented in France. This machine worked by a continuous process: pulp was fed onto a belt of wire



cloth that was continually moving so that the sheet was left on the surface while the water drained through the wire. The introduction of this machine and other technical advances drastically increased the output of the mills on the Water of Leith.

### New Methods of Production

As the mills grew, they began to invest money to develop and improve the quality of their paper products. In 1860 Kinleith Mill began to use esparto grass in production and was quick to capitalise on the advantages of this raw material. They were approached by T. and A. Constable printers to produce a bulk lightweight paper for book manufacture. This led to the birth of featherweight paper that became the staple of Kinleith's business. The books produced using it were light and easy to handle and their thick spines became a good sales point as they were easily seen by potential customers. Galloway's of Balerno also used technical innovations to aid their production, to increase their range of products and to produce high quality coated paper. In 1937 Galloways became the first British mill to operate the Champion process. This process made coated paper called Galart by continuous process on the machine and became a major part of Galloway's business

