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## **W**atermarks



On the left is an extract from the Western Cape Archives and Records service showing an image of a watermark in the form of a heraldic coat of arms (MOOC 6/5). The use of heraldic coats of arms is one of the most common images to be found.

If you look carefully, you will see a traditional conical beehive in the centre of the shield, with the name "honig" in capital letters. The image is probably a play on the paper-maker's name that alludes to "honey". Visual puns and plays on words are quite common in watermark designs, of which this is a lovely example, augmented by the flowers and plantlike embellishments at the top and sides of the shield (the "mantling" and "crest" in heraldic terms).

Watermarks are images created by a variation in the thickness of the fibres used to make paper. A sheet of paper is made up of a web of plant fibres that resemble a sheet of felt, when viewed under magnification. Historically, the recycled clothes and sheeting made from cotton, linen and flax plants were used to make paper, while today wood fibres are mostly used in the commercial production of paper.

The watermark is formed by thinning paper fibres over a raised area on the mould used to made paper before the development of machine-made paper in the course of the European Industrial Revolution (circa, 1750 – 1830 CE). This was done by sewing a design onto the base of the mould (known as a "deckle") where the paper fibres would settle as the sheet was formed. Watermarks are still used by artisanal paper-makers today, and, paper-makers specialising in high security paper products, such as the paper used for making paper money. Watermarking is still used as part of the range of production techniques for making paper money, and is where most people encounter a watermark when they hold a bank-note up to light and see an image that appears to sit inside the paper.

Watermarks are most visible when a sheet of paper is held up to a light source, and the light transmitted through the paper sheet shows the watermark.

Watermarks are known to have existed in Italy before the end of the 13th century CE, and are a feature almost exclusively associated mostly with European paper manufacture. Other paper making traditions in Asia (including China, Japan, India, Tibet, Nepal, etc.) and the Islamic paper making tradition of the Middle East, North Africa and southern Spain (known as Al-Andalus) don't employ this method. It is thought that watermarks evolved as a way of identifying a particular papermaker, although the deckle moulds could be sold on and used by other papermakers (and in some cases, even forged by unscrupulous makers). Historians have studied the watermarks in the hopes of better understanding the history of papermaking and the paper trade, as well as using the known characteristics of traditional hand-made paper to help verify the authenticity of historical documents and to identify possible forgeries.

The idea of watermarks as a means of identification has carried into the computer age. Digital watermarks (which may or may not be visible to the viewer) can be added to image, audio and video files so that information embedded in the file is retrievable for purposes of copyright protection.