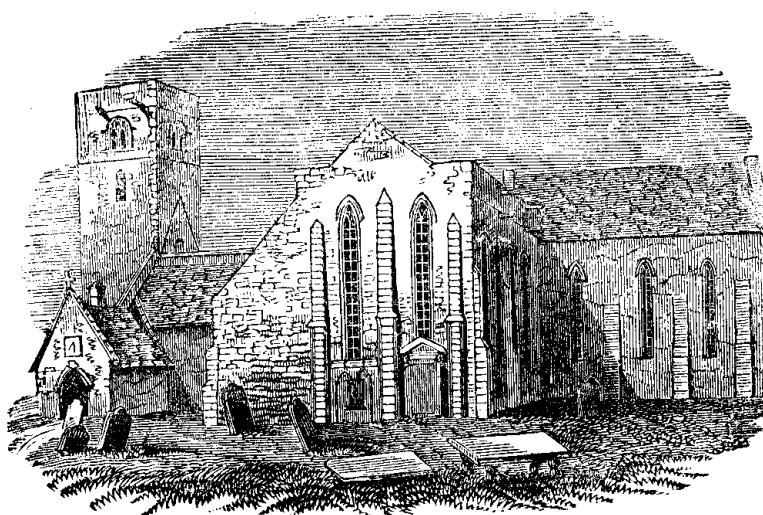




# CHERRYBURN TIMES

*The Newsletter of The Bewick Society*

## EXCOMMUNICATION AT OVINGHAM!



The Church of St Mary the Virgin at Ovingham in Northumberland.  
As illustrated in M. A. Richardson's *The Local Historian's Table Book*, 1846

Following the feature in the last edition of the *Cherryburn Times* about the Bewick Graves at Ovingham, the Editor believes readers will be interested in the following report given in M. A. Richardson's *Local Historian's Table Book* (Legendary Division, vol. III) published in Newcastle in 1846, at pp. 80-1. We reproduce this as an indication of attitudes rather different from those current nowadays.

'The following documents are extracted from the register of the Church at Ovingham, in Northumberland: 'John Sharp, Doctor in Divinity, Archdeacon of this Archdeaconry of Northumberland, to all and singular Rectors, Vicars, Chaplains, Curates and clerks, whomsoever, in and throughout our whole Archdeaconry, wheresoever constituted, greeting. We command you, or one of you, publicly to denounce, denote, and declare with effect, Mary Simpson and James Greener, of this parish of Ovingham, within our said Archdeaconry on some Sunday or holiday, in the said parish church of Ovingham, during the time of Divine Service in the forenoon, whilst the congregation of Christian people is there publicly assembled for Divine worship, to have been, and to be excommunicate by the sentence of the greater excommunication, respectively, for their manifest contumacies and contempt, in not undergoing a salutary and suitable penance by us enjoined them severally for their soul's health, and the reformation of their manners,

and more especially for the crime of fornication, by them severally committed, and in not certifying the performance of such penance, pursuant to our personal admonition to them, and such of them, within a certain competent time to them appointed, and long since past; and what you shall do in the premises you shall duly certify us, our lawful representative, or some other competent judge in that behalf, together with these presents. Given under the seal of our Archdeaconry, this first day of March, in the year of our Lord, 1769.

BRAEMS WHELER, Register.

'That the above excommunication was publicly read in the parish church of Ovingham, on Sunday, the second day of April, 1769, in time of Divine Service in the forenoon of the same day, is attested by us.

'The above persons were absolved, May the 7th, 1769'.

'Memorandum – That sentence of excommunication against Mary Fittis, wife of John Fittis, of Ovingham, was read in the parish church of Ovingham, on Sunday, Dec. 27. 1778, by me, 'CHRISTOPHER GREGSON, Minister.'

We don't know what the penance for fornication was then, but Bewick tells us that Gregson employed his mother as housekeeper and that later he was put to school with Gregson. Bewick comments that he was very severe with the rod. In 1769 he was sixteen, and in 1778, twenty-five. This was a year after his return from London.

# A HISTORY OF PRINTING INKS

by Richard Mulholland & Eneke Fraile Ugalde

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During the first half of the nineteenth century, the demands of an increasingly literate population meant that manufacturers looked towards finding cheaper sources of materials and more efficient means of producing the written and visual worlds. This historic evolution affected all aspects of the printing trade; the change from quality rag paper to inferior papers made from wood pulp, the invention of new steam-powered printing presses, and the manufacture of printing inks, were all to the detriment of the craft.

Thomas Bewick came at the end of a historic tradition in the production of printing inks that had changed little in practice since the fifteenth century. In 1741, *Chambers Encyclopedia* tells us that 'the making of ink was no longer part of the printer's business'. However, printers still created their own inks at this time; recipes were jealously guarded and there was much pride in the craft. The knowledge and skills of preparing ink and making printer's oil has almost been lost to us today, surviving only in the best fine art printmaking studios in Europe.



Mid-eighteenth century: dabbing the ink onto the printing surface with 'ink balls'. Illustration from Blanche Cirker, 1800 *Woodcuts*.

The requirements of a good printing ink are first and foremost that it should consist of a viscous liquid which will easily transfer from the plate or block to the paper and not spread. It should dry quickly in order to avoid offsetting and it should wipe easily from the plate or block. This liquid is mixed with a finely ground, coloured powder – usually a black derived from carbon. Until the invention of the ink roller in the nineteenth century, the ink was applied to the block or type with ink balls made of leather stuffed with wool or hair, attached to a wooden handle.

The earliest printing inks were made by the Chinese in the third century for woodblock printing on silk or paper. This ink was virtually identical to the Chinese

writing inks of the time, a thin water-based fluid with gum arabic as the binder. The Chinese did not then have moveable type, but used blocks with a whole page carved with the required text. They therefore had no need to develop an ink to suit moveable metal type. The inks would have passed into the hands of the Arabs via the Silk Road, and from thence to Europe. The invention of the printing press in the 1450s provided a faster and more reliable means of transferring the image from the block to the paper. However, the water-based inks which were used in the East were unsuitable for use with the fine lines of the type. Gutenberg was the first to use moveable type and an oil-based ink in the fifteenth century, and after the appearance of this first European printing ink, changes in its manufacture were slow to appear.

## Oils

Oil was known as a binder certainly in Giotto's time (early fourteenth century). Linseed oil was extracted from the seeds of the flax plant by means of a simple screw press until the eighteenth century, when a stamper or a wedge press was used. The oil was purified by leaving it to stand for at least one year, so that impurities would settle out. In the nineteenth century, manufacture moved towards reducing costs and manual labour, and to the use of new technology. Elaborate filters were devised and chemical methods were used to speed up the purification process. Consequently, the quality of the oil suffered.

Sun-thickened oil of the type used for easel paintings did not have the required viscosity to stay upon the metal type or sink into the engraved lines of a copper plate. In order to make it useful for printing, it had to be much more viscous. Oil for making printing inks was traditionally boiled in a cauldron, constantly stirred in order to prevent coagulation, ignited and allowed to burn. The longer it was cooked and burned the more viscous or 'stronger' (and also darker) the oil. This process was obviously dangerous as the oil was liable to run over the brim of the cauldron and ignite. For this reason, it was required by law to take place outside city walls. This resultant product was known as *Burnt Plate Oil* or *Typographic Varnish*.

For wood engravings, such as those produced by Thomas Bewick, the ink needed to be stiff. A soft excessively oily ink was useless for the precise lines associated with the delicacy of wood engraving, as it was easily forced into the white areas giving a muddy and smudged impression. On the other hand, ink which was too stiff would have barely covered the black areas producing a weak and blotchy impression.

Papillon, the French printmaker, whose wood engraving techniques Bewick developed and perfected mentions the following recipe:

*Place two pints of old nut oil in a kettle up to one third of its depth. Boil on a slow fire for two hours. Add an onion or bread crust to remove grease. Test for threading. Put into another pot half pound of turpentine and heat over a small fire. It is ready when it powders off a piece of paper dipped into it. If oil is new, pour in some turpentine whilst hot. Stir with an iron spatula and leave on a fire for a few minutes. Linseed, rape, or hemp oils may be used, but these are in decreasing order of quality.*

**J. M. Papillon, *Traité Historique et Pratique de la Gravure en Bois*, Paris, 1766.<sup>1</sup>**

## Resins and other additives

Turpentine or rosin was added from earliest times. It prevented the ink from spreading and causing haloes to form around the lines of the printed image. It also improved the drying time. The use of turpentine and sandarac would also have greatly increased the viscosity of the ink. Consequently the varnish would have required less cooking and burning. Rosin is a product of turpentine, produced by heating the liquid until all of the volatile content has evaporated, leaving a solid resin. When introduced to oil it is liquefied by the heat, but returns to a solid on cooling, thus producing suitable viscosity with less burning. The excessive use of rosin by English printmakers, mentioned by Moxon in 1683, was no doubt intended to reduce the production time and cost.

Other additives such as driers were added to the oil such as litharge (lead oxide) which was used often and is mentioned in many early recipes. The addition of bread crusts and onions is an interesting phenomenon and seems to have been part function and part printmaker's ritual. It is mentioned in many recipes in the eighteenth century. Some writers insist that it is of doubtful value, although in 1740, Mueller mentions that it made the oil dry more quickly and that it made it thicker.

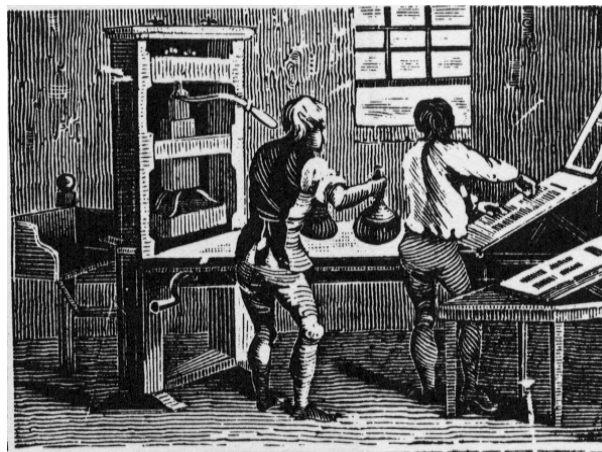
In practical terms, the bread and onions would have been carbonised by the boiling oil and this would have served to absorb the fatty acids contained in the mucilage of the oil, which would have ordinarily slowed its drying and produced a greasy ink. However, the practice seems entangled with romance and tradition. It contributed to the atmosphere and often formed a tasty lunch for the hungry oil makers. Frederick Goulding recalls an episode from his youth when his father and a group of apprentices hired a field to make printing oil. He describes an enchanting scene – the picturesque quality of the field at twilight illuminated by the flames of their cauldron, and he reflects that:

*The fun of us young folk was to throw into the burning cauldron slices of bread and after a few minutes fish them out again when a delicious toast was the result and to our youthful stomachs a source of delight; it really is not bad eating.<sup>2</sup>*

## Pigments

Black will always be the most widely used colour in printmaking. One only needs to examine the Gutenberg Bible to see how intense the blacks are after 500 years or more. It was often overheated in order to force the last

drop of oil from the seed. Although during Bewick's time printing was associated with quality, he was not adverse to complaining. In his *Memoir*, he mentions that when the *Fables of Aesop* was produced in 1818, a fine quality stiff ink was brought in for the job. However the pressmen in Walker's newspaper office were unused to it and applied it too thickly. In general, it seems that his pressmen were entirely unaccustomed to the degree of excellence to which Bewick and other printmakers aspired.



Print quality depended on the pressman's skill and experience balancing image and type against paper and ink. From Blanche Cirker, *1800 Woodcuts*.

The black pigment used in Bewick's time would have remained relatively unchanged since the beginning of printmaking. Carbon blacks were obtained from several sources from the combustion of organic materials. They were cheap, readily available in large quantities, had great tinctorial strength and were resistant to fading in light. The black ink for printing side-grained blocks and type was too thick and heavy for finely engraved white lines and Bewick often chose to print with a lighter ink of a rich brown colour. He may have added a red pigment to soften the black, and indeed there is a record of his buying quantities of red lead and vermilion.<sup>3</sup> In an 1835 publication, Hasper, giving compositions for various coloured inks, suggests that nine parts vermilion to one part black is sufficient to give an excellent brown.<sup>4</sup>

The black most generally associated with wood engraving is lamp black which is obtained from burning pitch resin. The resin was set alight in an iron vessel enclosed by a frame on which sheepskins were hung called a *Sac-a-noir*. When all of the pitch was consumed, the skins were beaten with a stick and the black powder swept from the floor. It was then washed and left to settle to remove impurities. The pigment was sometimes heated again or calcined to remove any residual grease that might transfer to the paper and cause staining.

Various other blacks were used in Bewick's time, most notably, Frankfurt, or vine black, which was manufactured from the burning of wine lees, the sediment left at the bottom of the wine barrel. This was used in copperplate engraving, since it was heavier and more granular and as a consequence could be more easily wiped from the copper plate without leaving streaks. Lamp black was too light and floccular to be used for copperplate engraving, but was suitable for lithographic plates, type and wood engravings.



Ivory black or bone black was obtained from the burning of animal bones or horns. Peach black was made from the burning of peach stones. These were generally considered to be too gritty for printing inks, and were not used for fear of damaging plates or causing clogging. By the 1820's coal and gas black were available, generally from America and thought to be superior to lamp black.

There is evidence that Bewick purchased quantities of Prussian Blue. Various eighteenth century documents refer to the fact that commercially available lamp blacks were very poor, and that the addition of blue pigments such as Prussian Blue or Indigo was necessary to improve it. According to Bloy, the addition of Prussian Blue became standard practice in the nineteenth century, giving depth and intensity to the black. Senefelder,<sup>5</sup> who patented the lithographic process, also complains of the quality of commercially available blacks and had to calcine it, or make his own.

Ink is one of the essential materials of printing, and printmakers paid much attention to the quality of their inks, carefully guarding their recipes and handing them down through generations. Today's ink industry uses highly developed technology, constantly having to adapt to new applications. Yet it is interesting to look back to its early history and think about the cauldrons, the flames and the bread rolls, the creation of the perfect black and the best oil recipe. With this in mind, a new perspective is opened up when appreciating prints, but a feeling that much of the art and craft of the process has been lost is unavoidable.

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<sup>1</sup>BLOY, C. H. *A History of Printing Ink Balls and Rollers*, London, 1967, pp. 107.

<sup>2</sup>FREDERICK GOULDING, 1910.

<sup>3</sup>7 April 1801 and 4 April 1799, Cash Book, 1269/5. Tyne and Wear County Council Archives.

<sup>4</sup>HASPER, W. *Handbuch der Buchdruckerkunst*. pp. 61.

<sup>5</sup>The principle of Lithography was discovered by Alois Senefelder in Germany in 1798. Its early application was mainly in the printing of music, but commercial printers, realising its versatility, began using it on a large scale after about 1820.

# Annual General Meeting

The Annual General Meeting of the Bewick Society will take place on Thursday 24 June at 6.30pm at the Literary and Philosophical Society, Westgate Road, Newcastle upon Tyne. The guest speaker will be Laura Newton, who will talk about The Bewick Club and the Cullercoats Artists Colony of the 1880s.

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## London Meeting

The London Group of members will be holding an Autumn Meeting at 2.00pm on Saturday 18 September 1999 at the usual venue, namely, The Library of the Working Men's College, 44 Crowndale Road, London NW1 1TR. The invited speaker is Nigel Tattersfield whose talk will be on Bewick Bookplates. Members are welcome to bring guests.

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## Evening at Cherryburn

On Wednesday 21 July 1999 at 7.00pm, the Northumbria Regional Office of the National Trust will be hosting an Open Evening at Cherryburn for Members of the Bewick Society. On show will be examples of Bewick's early work illustrating fables. On this special occasion Members will be permitted to handle the copies.

If you would like to come, please notify Hugh Dixon at the Scots Gap Office of the National Trust, either by letter or by telephone (01670-774691).

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## Editorial Announcement

The Committee of the Bewick Society has approved a decision to publish the *Cherryburn Times* in a four-page format in this edition and for the future. This may be varied from time to time as appropriate to the material submitted. For example, the next issue of the *Cherryburn Times* will contain the first publication of a most interesting Bewick document presented to the Natural History Society of Northumbria. It is a four-page manuscript of a Memorial sent to Jane and Isabella Bewick at the end of 1880 or the beginning of 1881. We will publish this document as a photograph with a transcript and a commentary by June Holmes.

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*Cherryburn Times* is published twice a year. Contributions are invited particularly from members of the Bewick Society.

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