

## Some words on indigo

It is often said that indigo dyeing had been lost and was revived by Morris. But in the summer of 1875 he was able to go to Leek in Staffordshire to learn this most ancient of processes, though Wardle was using the new anilines that had replaced the chemical dyes which in Morris's youth had ousted the old organic stuffs. Still unstable, they were being developed for operations very different from those at Merton. In these extracts from handbooks of 1825 and 1875, with a newspaper paragraph of 1849 halfway between them, we see indigo in unbroken if waning use through most of Morris's life.

*From The General Receipt Book; or, Grand Oracle of Knowledge, published by W.P. Chubb, London, 1825.*

On the Woad Vat.—I will here give the process of the woad and other blue vats, as taken from the work of a very ingenious dyer. The process here laid down I have practised myself with the greatest success; though (excepting the woad vat) the other blue vats may be made in fifty different ways, always remembering that the cold vat is mixed with pearl-ash, green copperas, lime, madder, and bran. The hot vats are prepared either with water or urine; if with water, pearl-ash and a small quantity of madder must be added: if with urine, alum and tartar must be joined to the indigo. Both of these vats being principally intended for wool, require a moderate degree of heat; but at the same time, strong enough for the wool to take a lasting dye, such as will withstand the destroying action of the sun and air.

I beg here to observe, that the liquor of all vats appears green beneath the surface, as also do all woollen cloths, as soon as they come out of any vat; but, being exposed to the air, they will immediately turn blue, and were it not so, the dye would not be lasting.

*From The Morning Herald, No. 20,805, Saturday 17 February 1849.*

#### IMPORTS OF INDIGO

At the Indigo sales today 1095 chests have passed, of which 180 were withdrawn, 160 bought in, and 758 sold. Prices ranged from 2d. per lb. advance for fine goods, to 3d. and 4d. for other sorts. Total quantity passed, 4781 chests, of which 987 were withdrawn, 524 bought in, leaving 3270 sold. The sales will be resumed on Monday.

From: *The Dyer's Handbook . . . with patterns dyed from white by the process given to each.* By F. J. Bird, Manchester, 1875.

Woad alone was used for colouring wool blue before indigo was introduced into Europe. The introduction of indigo was a great advantage to the dyer, not only for its intrinsic value but because he could daily strengthen his vat, using the old woad as a fermenting agent, like yeast in making bread.

#### DARK BLUE, FOR WOOL FOR BROADCLOTH

A healthy woad vat is employed for this colour. The wool is handled slowly for one hour, then removed. After two hours it can again be dipped until it has acquired the desired shade. Enough indigo should be added to the vat to colour the wool in three immersions, that is, about 10lb. of indigo to 100lb. of wool. The wool may with advantage be taken through a warm bath containing 2lb. of sulphate of copper. This additional immersion renders the colour faster in fulling. A dark blue, very common in the market, is topped with camwood, or red sanders, the latter being boiled on the coloured wool.

#### THE GLOUCESTERSHIRE INDIGO VAT

Size: 5ft. over the top, 7ft. deep and 6ft. to 7ft. at bottom. To make: Take  $\frac{1}{2}$  cwt. of bran,  $\frac{1}{4}$  peck of lime, and 40lb. of indigo. Warm up to 180° or 200°, rake it, or in other words stir it four times a day. If it ferments too much, add more lime; if not enough, more bran. An experienced eye or nose will soon tell when it is ripe or fit to use, which should be in about three days. Regulate strength of vat from time to time by the depth of colour required. No madder or woad is used when much permanency is wanted.

Bird's own works were at Stroud, Gloucestershire. He seems to have been a wholesale druggist or drysalter as well as dyer. In his account, as in Chubb's earlier one, the language used is organic, not scientific, in its references: the vat, as Morris noted, was still 'she'.

R.W.