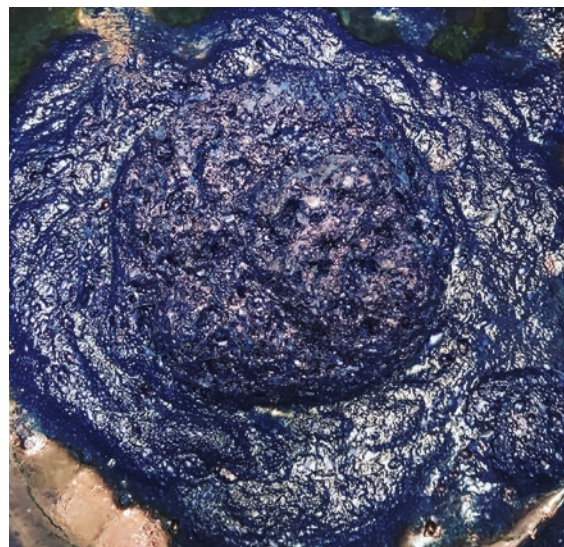


The Colour Blue – INDIGO

INDIGO, *INDIGOFERA TINCTORIA*, IS A PLANT FROM WHICH BLUE DYESTUFF IS OBTAINED. INDIGO IS NOT WATER SOLUBLE, BUT WHEN MADE UP INTO A VAT DYEBATH AND TEMPORARILY REDUCED, THE DYE INITIALLY APPEARS GREEN AND THEN TURNS BLUE AS IT OXIDISES WITH THE OXYGEN IN THE AIR.



The vat dye bath is sensitive to oxygen, therefore the material to be dyed should be handled with care below the surface of the dye bath. An indigo dye bath works well for cellulose fibres such as cotton, linen and ramie as well as wool and silk.

The pH value should be 10–11 (alkaline) which is rather high for wool, so it is recommended that wool be treated in an alkaline bath prior to dyeing and in an acidic bath after dyeing. Prepare a preliminary alkaline bath by mixing 1 tablespoon slaked lime (calcium hydroxide) in 3 litres of water. And an acidic afterbath by mixing ca 2 tablespoons 24% vinegar in 3 litres of water. The volume of the bath varies according to the amount of material.

Before I embarked on this project, I tested out indigo from various suppliers: from Maiwa in Canada, which sells natural indigo from south India and another pigment from Stony Creek Colors in USA, where they cultivate their indigo in situ. The indigo from India produced a deep blue tending towards red, while the American indigo tended towards a greenish blue. I opted to use the Indian indigo dyed yarn for the kitchen and the American for the bathroom (for VÄV 4/20). The latter shade was more redolent of a Turkish or Moroccan bath house, or hamam. I decided to prepare the natural indigo with the 1-2-3 method, which involves using indigo, slaked lime and fructose. Suppliers: maiwa.com, stonycreekcolors.com, wildcolours.co.uk

RECIPE AND DYEING

Prepare your dye bath ca 3–24 hours before dyeing. Initially, have the water very hot when preparing the indigo bath, ca 85°C.

Weigh the indigo power and put into a strong plastic bag, add some hot water and massage the powder from outside the bag, loosening up any lumps. This can also be done by grinding the indigo in a bigger mortar with some water added.

Alkali: slaked lime

Reducing agent: fructose or make your own decoction of ripe bananas/pears/mango/peaches/grapes NB – no citrus fruits!

This bath can be kept so long as it is not allowed to simply stand too long, when there would be a risk of it turning mouldy. To keep this indigo dye bath going longer, a little fructose and lime can be added when starting the dye bath up again the next day/occasion. Stir the dye bath with care.

INDIGO RECIPE, 1-2-3 FOR A SMALLER BATH GIVING A MID-BLUE ON CA 200 G TEXTILE

MATERIAL

You will need:

- 5 l water
- 1 part indigo (20 g)
- 2 parts slaked lime (40 g)
- 3 parts fructose (60 g)

Method:

1. Measure up ca 5 l water and pour into a rustfree vessel, then heat up to 85°C.
2. Add the fructose and stir.
3. Add the indigo mass.
4. Add the slaked lime. Take care that there are no lumps, leave to disperse.
5. Stir vigorously in a circular motion to make a good vortex. Repeat twice, at 10 minute intervals. The indigo flower should now form in the centre of the vortex. Leave it resting on top of the dye bath.
6. Cover the dye bath with a lid or plastic and leave to reduce (3–24 hours) before using.

DYEING: TEMPERATURE FOR DYEING

CA 27–32°C

Soak your material in water before you start dyeing. The first dip should be for 10 minutes. Dip several times to produce deeper shades: 2 minutes each for these dips will be sufficient. Lift the material carefully out of the indigo bath, catching drips as far as possible in a separate bowl. Leave 20–30 minutes between dips.

Rinse the material in cold water between dips, which aids the oxidising process.

I did my dyeing for the kitchen in a larger bath, see the recipe below, and dyed each type of yarn separately for 10 minutes. Then all the hanks, suspended on the same wooden pole, were dyed simultaneously for the subsequent 6 dips of 2 minutes each. I rinsed the yarn thoroughly between each dip and left the material to oxidise for 30 minutes.

You will need:

- 30 l water
- 1 part indigo (100 g)
- 2 parts slaked lime (200 g)
- 3 parts fructose (300 g)



LINEN STORE CARE

I read up on laundry in my household bible, *Stora Hjälpredan* (The Great Help), 1949. There were a lot of headings, dealing with everything from what dirt is to how to set up a laundry room and a linen cupboard with different compartments for sorting out the laundry. Regarding the information as to what dirt actually is made me realize what I had always been doing wrong regarding spots and stains. Some of the washing advice appeared so complicated and long-winded, as with the laundering, that I have accepted that not all linen can perhaps be made shiny white and clean as before and that it does not matter. I remember how my paternal grandmother, despite having a lovely well-equipped laundry room in her block of flats, persisted nevertheless in boiling all her washing on the cooker. I never saw all the stages of her laundry routine, but her linen cupboard was gorgeous, neat and smelt divine. Between her piles of perfectly folded and rolled sheets lay fragrant pieces of soap. A tradition I have adopted and can recommend.

SOAKING AND BILE SOAP

I spotted my chance for furthering my skills and acquainting myself with the empirical knowledge offered by real pros and took part in a study visit to the textile store in Stockholm's Royal Palace, organized by the Swedish Weaving Academy in February. There I noted that stains should be dealt with as quickly as possible and with cold water. By using hot water there is a risk of the stain setting and becoming permanent. Moisten and work the stains with bile soap. If they are stubborn, dilute a little chlorine in water and work the stains with a cotton bud or a little brush and bleach out the stain.

Sometimes the textile needs soaking before being given a warm wash. In that case, soak it in cold water before washing at 60°. Cold mangle to remove the creases and wrinkles arising in the wash, hang up to dry and mangle again while still damp to bring out the sheen. At the textile store, laundry was allowed to rest before being put away in the cupboard and in a specific order so the items would wear more evenly.

* Do not put through a wash higher than 60°C.

* Drain the machine when linen has been washed with a short spin to avoid heavy creasing and allow the linen to drip dry.

* Cold mangle once when the linen is damp and again when the linen has almost dried completely. A good alternative to cold mangling is to iron linen, still damp, on a high heat setting.

Do not tumble dry linen!

WEAVING FOR THE HOME

I like the idea of starting from scratch. What would I acquire if I had nothing in place? If I had not inherited from my grandmother, had not made purchases here and there at flea markets in the country. What by way of textiles do I need for my household? Which are the textiles in my home that I use the most and every day? And what should go into my mini textile store for the kitchen? How should they look?

I made a list and included kitchen mat, kitchen towel, glass towel, napkin, placemat. The next step was choosing the colours: I recalled a picture of the Porcelain Room at Drottningholm Palace which was in white and blue.

It occurred to me that the low temperature of the dyeing process and relatively gentle process would suit my fine threads and it would be interesting to take the opportunity of using natural indigo and the fructose based 1-2-3 method, where only fructose and slaked lime are used.

Indigo, the bluest of all, the most magical in its dyeing process and with traditions in different parts of the world.

Sampling is central to my work. As soon as I test out a new combination, change a component in an already viable quality, I have to test it to feel confident it will turn out the way I want. Sometimes the difference can be one end to a centimetre.

For my kitchen textiles project, I wanted to work with GOTS certified material, i.e. Global Organic Textile Standard, and found the materials I wanted to work with at Venne Colcoton. The linen was ordered from Växbo Lin and Klässbols Linen Weaving Mill.

I started by sample dyeing the different threads to see how many dips in the indigo bath were needed to produce a blue that when combined with the white warp and weft would come over as strong enough.

The same number of dips produced one and the same deep blue in the various materials, linking the textiles beautifully together. The different textures were then more visible.

Should you want to replace the indigo blue dyed yarn, there are other blue shades stocked by different yarn companies.

The KITCHEN textiles project follows on the next five spreads.