My Experience with Natural Dyes

Barbara Schey

Introduction

In 1964 I moved from the city to Tamworth in country NSW. In an effort to assimilate into country life, I learned to spin and weave. Finances were tight on our farm but we had our own wool and our teacher, Dulcie McLennan, was very keen on natural dyeing. As with all my projects I documented all of these crafts thoroughly, this as a result of my secretarial training.

I was made aware the colour results in natural dyeing were dependent on several issues so I made a sample record sheet and had it duplicated (!), some of you do not even know what that means!

Dyes

I recorded the type of wool; the dye material; the time of year; the type of season; mordant or not; boiling time and geographical area of plant material. I recorded extensive samples and have only recently passed these to a friend who is studying natural dyes in depth.

Influences

Apart from Dulcie and library books (no internet in those days), I contacted the district agronomist, Bruce Scott, and enquired why many of the good dyestuffs had a strong odour. He said it was the sulphur content. Growing in the Tamworth area there was a plant called Darling Pea (pictured at left), which was referred to as wild indigo and which made the area of wool on the sheep which was affected by urine, turn blue. The colloquial term for these sheep was "pea eaters" and the sheep were physically affected when they ate this plant. The agronomist said the wild indigo did not have the indicans gene but two plants which grew in the area which did contain the gene were blackberry nightshade and queena. I never got around to making a vat from these plants but it would be interesting if someone could learn from this information. I would love feedback if anyone uses this information.

I also contacted Ken Hall, the head science teacher at Farrer Agricultural College and he gave us a workshop in a true scientific way using test tubes. This was a big change for us as most of our dyeing days were done out in a paddock in large tin or copper containers over a large open fire. Ken explained there were many mordants which could be used apart from the well-known mineral mordants we had been using. One was using the filaments from light bulbs which are titanium. Titanium is also used for the small propellers in jet engines and nothing would satisfy me until I obtained one of these for my own use, I am very determined when I want something.

Mordants

We were in the habit of pre-mordanting our wool and leaving it damp and wrapped in plastic until ready to dye.

When I attended the Third International Shibori Symposium in Santiago, South America in 1999, I enrolled in a workshop on natural dyeing. It was quite expensive by my standards and there were 26 people in the class including the interpreters for the 6 different languages spoken so we did not learn very much. It was impressed on us however, that if pre-mordanting, the yarn/fabric had to be well washed after mordanting and before dyeing else the mordant would react with the dye molecules in the dye bath and thus reduce the intensity of the dye. Enough mordant would be left in the material, even though it was washed. This was an eye opener for me and so the cost was probably worthwhile for this very important piece of practical information. Unfortuntely, by this time I was almost exclusively using synthetic dyes, so I pass this information on for free!

I was fascinated by the change in colour as a result of the difference mordants and also by the container type. I carried out one experiment using equal quantities of wool, water, dyestuff but boiling in a tin, a copper kettle, an iron kettle and an aluminium saucepan, all with no added mordant. The colours were dramatically different. I once placed a whole fleece in a copper container, filled it with water and then did not get back to it for about 3 months by which time the wool was very green. In later years, when I wanted a little green yarn, I placed it in a glass jar containing copper offcuts with 50% household ammonia and 50% water. The yarn usually turned green in a week or so. In my continuing quest for mordants, I also obtained some smelted copper from a mine in Queensland. If I do anything, I usually do it thoroughly. Iron tent pegs are also a useful mordant. It goes without saying, if the fabric/yarn is not to be influenced; they must be boiled in a stainless steel or glass container.

Dulcie McLennan

Back to my original mentor, Dulcie McLennan: Sometime in the 1960's when everyone else was high on whatever (if you do not remember the 60's, you were not there), Dulcie and other movers and shakers, met at Sturt College at Mittagong NSW to form a group which became eventually the Australian Forum for Textile Arts. The people involved were: Dulcie McLennan; Solvig Bas Beckling; Erika Semler; Jutta Feddersen, Peggy Buckingham and several others. I am proud to say I was an original contributor (a whole ten pounds???) to get this group started. TAFTA as it is now known, has gone from strength to strength and really recognised textile arts for the first time in Australia. I subsequently worked for 2 years with Erika Semler, a German master weaver, under a Crafts Board of the Australia Council Grant. I was the first ever apprentice to a master weaver under the Craftsman in the Community Project.

Orchil Lichen

Dulcie first mentioned Orchil lichen (which dyes purple) when she was talking about a visit to her brother in the Hawkesbury River, NSW. She was not very forthcoming with details and it took me some time to realise the lichen grew on trees rather than rocks (not sure about this anymore). Dulcie said the test of whether the lichen would dye purple rather than the traditional brown, was to drop a little household bleach into the middle of the lichen, when it would show a brief purple tinge. This has never worked for me.

With my usual perseverance, I kept trying lichens and eventually discovered the orchil lichen growing on the north coast of NSW. It is usually attached to a tree around the edge of coastal estuaries where mosquitos and snakes abound. It is easier to scrape it off the tree whilst it is raining and the lichen is damp. I have met lots of new friends whilst scraping lichen off trees in the rain. Hello!! The lichen seems to grow on a variety of trees such as swampy oaks, paperbarks and palms, these latter with a smooth surface enable easier removal of the lichen.

The lichen should be put into a glass jar containing 50% water and 50% household ammonia. It is then stirred to oxygenate, once a day for 30 days. After this time, it can be kept sealed for 20 years or more (ask me how I know). It seems to me that it has a bad name for colour fastness because the colour runs in the first 10 minutes but my practice is to boil for a full 2 hours and leave in the dyepot overnight to allow the dye to adhere to the dye sites. Adding vinegar in the last 10 minutes of dyeing changes the colour from purple to American Beauty maroon.

I have kept dye fast samples for over 20 years, albeit they have not been subjected to rigorous testing.

Testing

When I was involved in natural dyeing, our simple test was to put a piece of dyed yarn into a matchbox with half protruding. We then left it on a windowsill in full sun for a fortnight. If there was no difference in the contained and exposed piece of yarn, it was deemed to be colour fast. I wonder how many modern dyes would cope with this test.

Where I am Now

Pictured at right is the piece of natural dyeing I did for the International Shibori Symposium in France in 2008. The dyes were obtained from yellow box leaves (Tamworth), Privet berries (Sydney) and some very old orchil lichen.

When I was apprenticed to Erika Semler, she was not interested in natural dyes and introduced me to the optically bright colours which have been my trademark ever since. My dyes of choice are mainly fibre reactives which are strong, optically bright and colour fast.

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