

# **The** Saxon, Norman, Celtic & Viking Re-Enactment **Vikings**



**A PRIMER FOR NATURAL DYEING**

**COMPILED by JANE RICHARDSON**

**FOR THE VIKINGS**

**Ex Libris:**



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## BIBLIOGRAPHY

The Use of Vegetable Dyes — Violetta Thurstan  
Dryad Press ISBN 0 948020 00 8

Natural Dyes, Fast or Fugitive — Gill Dalby  
ISBN 0 948020 00 8

The Cautious Dyer (a Guide to Mordanting) — Olive May  
a booklet published by this lady. (See Ros Sheard?)

Natural Dyes — Mary Hill  
a leaflet handed out at a day class on natural dyeing. Mary Hill was the chief researcher on dyes on the Mary Rose. (See Jane Bensted)

## A FEW WORDS ABOUT DYEING

When you begin with this craft, *try* out anything you think might give you a colour. Most plants will give some colour — usually a yellow — but there are exciting surprises. You will find out by trial and error that some plants do not give a fast dye.

When you rinse the dyed wool, a little surplus colour will come away in the rinsing water and after that the colour should be fast to washing, but if the colour keeps running out as you rinse the dyed wool, the dye material must have been what is known as a “fugitive dye” and you will know not to use that again. To test for fastness to light, cover part of your dyed sample and leave part exposed to the sunlight. Label it with the necessary information e.g. dye plant used, if the plant was fresh or dried, where and when the plant was collected, mordant used, date of dyeing. Check the colour of the exposed part against that which was protected from time to time. With experience you gradually become selective and use only those plants that give you reliable colours and fast dyes.

Weld, Woad and Madder are examples of plants that have been proven through the centuries to produce good, fast dyes. Although dye books will advise you to use plants in their prime, I have obtained good colour from dead flower heads. Experiment!

Berries, however, will have to be ripe.

## NATURAL DYEING - An introduction

\* All yarn that is to be dyed must be thoroughly washed first, it must then be rinsed and can be left wet (wetted) ready for mordanting: —

### Mordanting

\* A mordant is a chemical that allows the colour from the dyestuff to attach itself to the yarn.

1. In the dye bath, heat 6—8 pints of water to blood heat.
2. Dissolve 1 ounce Alum in a small amount of water and then add to the dye bath;
3. Add the wetted yarn and bring to the boil, taking half an hour.
4. Simmer for one hour.
5. Allow the yarn to cool in the mordant liquor.
6. Can either be used immediately, stored damp for a short while, or dried and stored for future use.

### Mordants per 4 oz. yarn

	ALUM	COPPER	TIN	IRON
MOHAIR	1 oz	¼ oz	¾ teasp	1 teasp
SILK	1 oz	¼oz	¾ teasp	1 teasp
WOOL	1oz	¼ oz	¾ teasp	1 teasp

## DYE RECIPES per 4oz wool

### Basic dyeing recipe:—

1. Weigh *yarn*.
2. Wet the yarn.
3. Make dye bath of correct ratio of dyestuff to yarn.
4. Cool and make up to correct ratio of liquor to dyestuff i.e.: 2 : 1 (liquor in pint: dyestuff in ounces.)
5. Add wetted yarn to the dye bath.
6. Bring to the boil, taking half an hour. (The exception to this is madder+, which should never be allowed to boil or it will turn the yarn brownish red)
7. Simmer for one hour.
8. Allow yarn to cool in the dye bath.
9. Rinse twice in water the same temperature as the dye bath.

\* As a general rule of thumb you should use the same amount of dyestuff as you have yarn, again the exception is madder+ which is used as 1 part madder+ : 2 parts yarn.

\* If the dyestuff is woody, it should be soaked overnight in soft water (rain water or hard water with calgon added) [exception; madder+ should have hard water] . Boil up the dyestuff in the water it was soaking in plus a little more, for about one hour. Cool and strain.

### 1 BARK OF TREES — Apple, Ash, Bird Cherry

The bark is used either fresh or dried.

Mordant: Alum

Process: The bark is chopped up small and boiled for 2 hours or longer, and then the mordanted wool is put in and dyed until the required depth of colour is obtained.

Colour: Apple and Ash give varying shades of dull yellow to deep gold depending on the length of time it is boiled. Bird cherry gives a light chocolate colour if boiled for a long time.

+ Rubia Tinctoria

## 2 BIRCH

a) Leaves: These may be used *fresh* or dried. If fresh use 2lb leaves to 1lb yarn. If dried, double the quantity is necessary. Mordanted with Alum a good yellow is obtained.

b) Bark : This will give a reddish brown. If mordanted with Iron it tends towards purple. With Alum a dull yellow to deep gold is obtained.

## 3 BLACKBERRY (*Rubus fruticosus*)

a) The young shoots give an almost black colour if mordanted with Iron.

b) Berries: Mordant 4oz Alum, 2oz cream of tartar, 1 oz salt to 1lb wool 1lb berries or more if a deep shade is required.

Process: The berries are crushed, put into cold water brought up to the boil, and mordanted wool put in.

Colour : Bluish grey for wool. Slate blue for silk. An Alum mordant will give a brownish grey to wool, silk mordanted in the same way but with the addition of cream of tartar will be dyed a pretty rose colour.

## 4 BRACKEN (*Pteris aquilina*)

The young shoots and toots picked in early June will give a good yellow or yellowish green. Soak in cold water for an hour, bring slowly to the boil and leave to simmer for 2 hours. The wool, previously mordanted with Alum is entered, and left for about 2 hours to get cold in the mordant.

## 5 ELDER (*Sambucus nigra*)

The leaves give a green colour with Alum mordant. The berries give a blue—lilac colour with Alum and salt, a violet with Alum only. The bark gives black with Iron.

## 6 ONION SKINS (*Alium cepa*)

The outer skins are used. They should be boiled for about 2 hours, then the yarn, mordanted with Alum, should be entered and boiled for an hour. A golden brown is obtained. This is not a very fast dye.

## 7 INDIGO - An interesting, if inauthentic, method of dyeing.

To make the stock solution:—

1. In a jar, mix 1 oz powdered indigo and 1 oz sodium dithionite.
2. Slowly add water to make a paste, leave for 10—20 mins.

3. In a separate container add 1 oz sodium hydroxide (caustic soda) to 1 pt water. Stir until it is dissolved.
4. Add this to the Indigo mix and stir well.
5. Put on a lid and leave to stand until liquid has cleared, about 20—30 mins.

### DYEING METHOD

This should be done in a well-ventilated room but preferably outside.

- 1 Fill dye bath 2/3 full with hot water MAX 140 F.
- 2 Add 1 teasp sodium dithionite, stir and leave for 20 mins.  
(This removes the oxygen from the water.)
- 3 Gently add 1/2 the stock to the water, DO NOT SPLASH otherwise oxygen will be introduced to the water.
- 4 Stir gently and leave for 20 minutes.
- 5 Add wetted fibre (wool, cotton etc) to the vat (dye bath) sliding it gently into the liquid, leave for 5 mins.
- 6 Remove fibre by slowly sliding it up the side of the dye bath trying not to let any drips fall into the vat. (Remember not to introduce any oxygen)
- 7 Squeeze carefully and shake in the air to oxidise, the colour should change from green—yellow to blue.
- 8 If the colour is not deep enough repeat steps 5,6 and 7.
- 9 Wash in water to which 2 tablespoons vinegar has been added.
  - \* If the vat begins to look blue; oxygen has got into it and step 2 must be repeated.
  - \* As the dye bath gets depleted add more stock starting at step 2

+++ This is a good way of obtaining the blue that you would get from WOAD and it does not involve collecting men's urine from first thing in the morning! +++

## **A FEW POINTS TO REMEMBER WHEN YOU GATHER YOUR DYE MATERIAL FROM THE COUNTRYSIDE.**

\* Pick only the plants that are abundant, e.g. cow parsley, ragwort, nettles etc and not all from the same place.

\* Preferably use plants, weeds, berries etc from your own garden. If you plan to continue dying with plants over a considerable time period then I am sure you will want to grow your own dye plants.

\* Some rare plants in the wild are protected by law and it is illegal to pick, uproot or destroy any of these plants. Furthermore, it is illegal to uproot any other wild plant unless you own the land on which it is growing or have the permission of the owner. A leaflet listing the protected plants and an information sheet can be obtained from: The Council for Nature, Zoological Gardens, Regents Park, LONDON, NW1 4R1

\* Some lichens take many years to grow, please protect them in the interest of conservation. The Lichen Society recommends that, if you wish to experiment in dyeing with lichens, you use only the plants on trees or branches that have fallen or been cut down.

Some of the plants we use for dyeing are potentially dangerous. The best advice I can give is for you to get to know about the plants that you use for dyeing and to take the necessary precautions if they are likely to irritate the skin or the mucous membranes of the eyes, nose or mouth. Many plants are toxic, but only if swallowed in large amounts. Keep these away from children, and help children be aware of the danger in handling poisonous plants, teaching them not to put unknown plants, seeds and berries into their mouths. Let your children be aware of your reasons for the precautions you take when handling hazardous material, useful books to consult are 'Poisonous Plants and Animals' — a Chatto nature Guide and 'Human Poisoning from Native and Cultivated Plants' by Hardin and Arena.

After a dyeing session you may find the liquor left in the dye bath is not exhausted i.e. there is still some dye left. It is sometimes worthwhile storing this for future use. It can be frozen in a polythene container but LABEL IT WELL so that it is not mistaken for a fruit drink. If it is stored on a shelf make sure it is out of reach of children, label it well, giving the details of the original dye bath and date. When you come to use it again, if there is an unpleasant smell from the liquor as you open the container, do not heat it but pour it down the foul drain (toilet) with plenty of water.

## KEY TO RECIPES FOR COLOURS

### British dye plants

### Foreign Plants

YELLOWS			YELLOWS
Alder	Dog's Mercury	Pear	*Flavine
Apple	Dyers Greenwood	Pine Cones	*Fustic
Ash	Dwarf Birch	Plum Leaves	*Kutch
*Barberry	Fig Leaves	Poplar Leaves	Persian Berries
Bedstraw	*Golden Rod	Privet	Quercitron Bark
*Birch Bark	*Gorse	*Ragwort	*Weld
Bog Asphodel	*Heather Tansy	Tansy	
Bog Myrtle	St John's Wort	*Weld	
*Bracken	*Lichen	Yellowwort	
Broom	*Ling		
Camomile	Marigold		

GREENS			GREENS
Alchemilla	Elder	Privet	*Fustic
Alder	Horse Tail	Reeds	Indigo
Bearberries	(Equisetum)	Sorrel	
*Bracken	Lily of Valley	Tamarisk	
Buckthorn	*Ling	Tansy	

PURPLES			PURPLES
*Birch Bark	Damson	Potentilla	*Cochineal
Bryony	Elderberries		Cudbear *Logwood Orchil

<b>BROWNS</b>			<b>BROWNS</b>
*Birch Bark	Juniper	Onion Skins	*Fustic
Bird Cherry	Larch	Pine Cones	*Kutch
Blackberry	*Lichen	Sloe	*Logwood
Buckthorn	Oak	*Walnut	*Madder
Hop			Myrobalans Sumach Valonia Acorns

<b>BLACKS</b>			<b>BLACKS</b>
Blackberry	Elder	Meadow Sweet	*Logwood
Dock Root	Iris	*Walnut	

<b>REDS</b>			<b>REDS</b>
Alkanet.		*Madder	*Cochineal
Bedstraw	St John's Wort	Sorrel	*Kermes
Blackberry	*Lichen		*Madder Red Woods

<b>BLUES</b>			<b>BLUES AND GREYS</b>
Bearberries Blackberry Buckthorn	Cornflower Devil's Bit Dog's Mercury	Sloe Whortleberry Woad	*Indigo *Logwood
Carrot			

<b>ORANGE</b>			<b>ORANGE</b>
*Lichen	Onion Skins	*Weld	*Flavine *Fustic *Madder Turmeric

\* = Asterisk indicates the most important plants.

## FOREIGN DYESTUFFS - some recipes

### COCHINEAL AND KERMES

Both of these *are* animal, not vegetable in nature, kermes would have been in use during the 10th Century, but I have included cochineal as a substitute as kermes is not generally available.

#### 1 Cochineal

This is prepared from the dried bodies of an insect, the *Coccus Cacti*; which lives on the cactus plants cultivated for this purpose in Mexico, the Canary Islands, and other places. Cochineal gives a different shade of crimson, scarlet or rose, according to the mordant used:-

Alum	=	magenta
Alum & cream of tartar	=	crimson
Iron	=	deep purple-grey

#### 2 Kermes

This is used in the same way as cochineal. It makes a very beautiful and permanent dye. The kermes beetle is plentiful in some parts of Eastern Europe and would have been imported into England either as the dyestuff or as ready dyed cloth.

#### 3 Madder (*Rubia Tinctoria*)

This consists of the dried roots, and was the principle dyestuff, giving a good brownish red.

Alum	=	brownish red
Alum & cream of tartar	=	orange
Iron	=	purplish brown

### Crimson with wool for COCHINEAL

i — Method for mordanted wool:

1lb wool mordanted with Alum and cream of tartar.

2oz cochineal

1 dessp common salt

Method: Put the cochineal and salt into a pot of tepid water and stir it until dissolved, then enter the mordanted wool, and bring very slowly to the boil. Let it simmer, under boiling point, for an hour, or until the desired depth of colour is reached. The colour will be a little deeper and more

even if the wool is allowed to grow cold in the dye liquor. Take out the wool, wash, and dry it.

ii — Method for unmordanted wool — mordant and dye in the same bath:

1lb	Unmordanted wool
4oz	Alum
1 1/2oz	Cream of tartar
1 oz	cochineal

Method: Dissolve the Alum and cream of tartar, and when the water is warm enter the wool, bring it to the boil and simmer for about 20 mins. Take out the wool and put in the cochineal. Stir well until quite dissolved, and then re—enter the wool and simmer just under boiling point for 3/4 of an hour, or until the desired shade is reached.

#### Red for wool with MADDER

1lb wool previously mordanted with Alum and cream of tartar.

8 oz Madder

A little powdered chalk if water is soft.

Method: The madder may be soaked overnight, this makes it easier to use, but it is not essential. It should be put into the dye bath and stirred very well as it is brought slowly to the boil, and kept just under boiling—point for about 20 mins. Then a little more water is added and the wool entered and simmered for about an hour. (It should not boil as this will turn any results brown). Allow the wool to cool in the liquor. Then wash in several waters and pass through a boiling soap bath; this brightens and improves the colour.

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