

Do you wish to know more
about making handmade paper
you can get information from Know How.
We can also deliver further
materials to you.

Several different kind of fillers,
glues and other sizes of mouldings
are available.

Have fun.

Creative
Environmentally friendly
EcologicalCreative

KNOW HOW



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HOW TO MAKE YOUR OWN HANDMADE PAPER

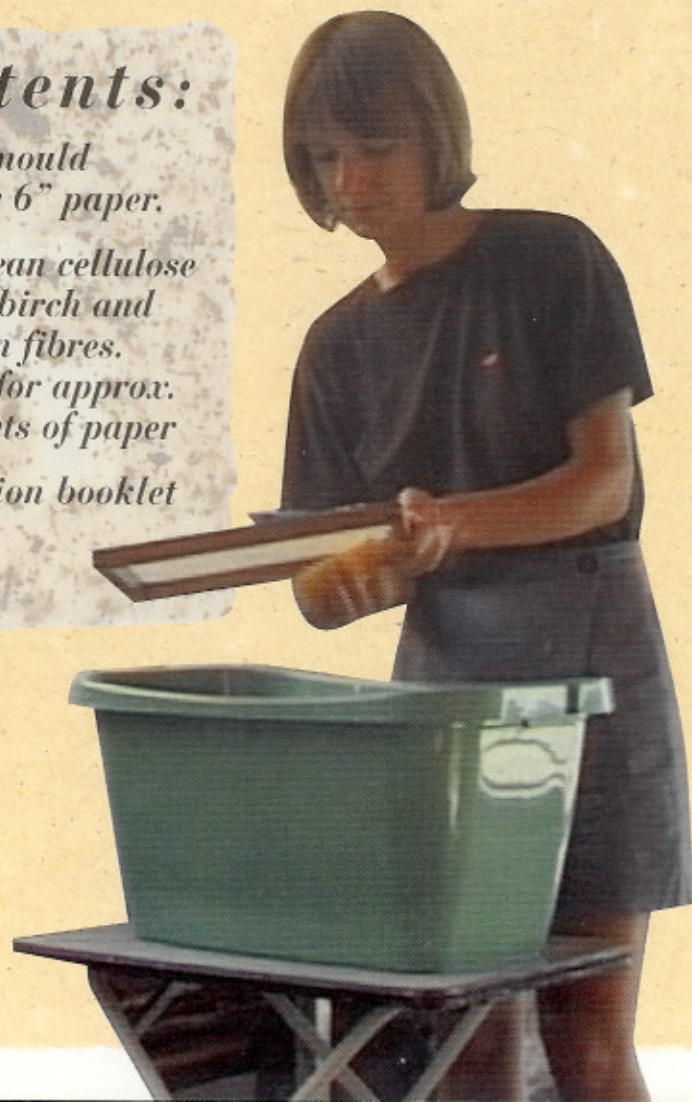
Contents:

*1 mould
for 8" x 6" paper.*

*300 gr clean cellulose
mixed birch and
cotton fibres.*

*Enough for approx.
100 sheets of paper*

Instruction booklet



Something made me wonder. For hundreds of years mankind has taken paper for granted - something that was simply there. Paper is as commonplace as the sun, the rain and wind. Paper is so much a part of our daily life that it has become invisible. Try to imagine what the world would be like without paper.

In the 1980's the world's leading newspapers were saying that by the 1990's we would be saying goodbye to paper! Today, in 1997, we can see that the demand for waste paper has never been greater, because the paper factories have converted their production so that it is now based on recycled paper. We have never used so much paper as we do today! The story of paper is two thousand years old. Most children in China know that it was T'sai Lun, employed in the imperial palace of the Han dynasty around the year 105 AD, who invented paper. Through experiments with plant fibres he created sheets of a material that could be used to imprint messages.

Equipped with this, you can learn to produce your own paper

Contents:

1 mould
(wire and cover for 8" x 6" paper)
300 gr. clean cellulose, mixed birch and cotton fibres.
Instruction booklet.

What is paper ?

Paper is made of natural fibres, and the result is a new piece of nature. Paper exists because of water. The origin of paper can be expressed as: plant/water/paper/life. The production of paper symbolizes the ecological cycle. When you work at producing your own paper, you gain an

understanding of your own story. To mould paper can be compared to lifting a piece of nature that has never existed before, out of a sea of fibre! Paper is a sheet made of a thin layer of either rags, straw, bark, wood or other fibrous material. For it to be real paper it must be produced on a sieve-like frame from a vat of water and floating fibres. The paper emerges when the water has drained away through the small openings in the sieve. That is how paper has been produced for almost two thousand years.

How can you produce floating fibre ?

Plants contain cellulose. Cellulose is the carbohydrate that the cell walls of plants consist of, and it is the raw material that paper is made from. There are many different kinds of cellulose fibre. The fibres of some plants are more suitable than those of others. Some fibres are long and thin, others are small and thick. The material most used today is what's called "half-stuff" which is partially-prepared scraps from the textile industry.

Raw materials

Our equipment for the production of paper contains the following half-stuff:

Cotton: Produced from short cotton-seed hairs, which have been boiled, bleached, and hammered into the shape of cartons.

Birch fibres: Cellulose from Swedish birch trees.

When you are going to use these cardboard for making paper, put a cardboard to soak for around 12 hours.

The carton is then rinsed thoroughly. This can be done by putting it in a large sieve and using a shower attachment. The fibres will separate, while you are rinsing them. The fibres now have to be shredded. This can be done with a kitchen blender. The blender separates and shortens the fibres by cutting them. A blender cannot liquefy the fibres completely, but it is good enough as an easy means of making your own paper. Each time you reuse or blend a fibre it shortens in length.

Fill the blender with 3/4 of a litre of water and add a handful half stuff. The fibre is blended in short spurts, until it is like thin porridge.

This is repeated until you have a bucketful of blended paper mass, this is called pulp. All your cartons are turned to pulp in the same way.

Recycling

If you would like to make paper from recycled paper, cut or tear the paper into pieces between two and three centimetres in size and let them soak in water overnight. You then separate the pieces and blend them in small portions at a time. The longer you blend, the finer and more uniform your finished sheet will be. If you want to be able to make out details in the paper, writing for example, you should not blend too long.

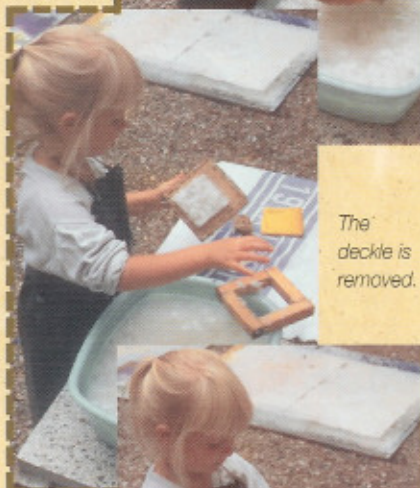
The vat

When your pulp has been finely shredded, it is poured into the vat. The vat is then filled with water until it reaches to about 10 centimetres from the edge of the vat. The more pulp you pour into the vat, the thicker your sheet will be. The less pulp, the thinner the sheet. It is a matter of trial and error until you get the right thickness for your sheet of paper. 5% half stuff and 95% water.

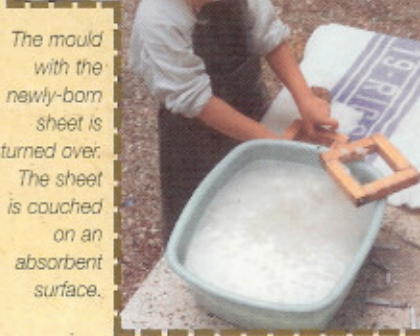
The Mould and Deckle

The mould consists of a mould and a deckle (tympan). The deckle is laid on top of the net - which faces upwards. The smaller the mould, the easier it is to make paper.

The deckle is laid over the mould. The net faces upwards.



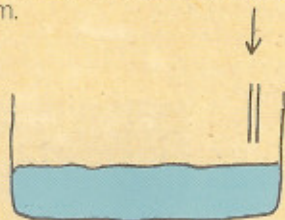
The deckle is removed.



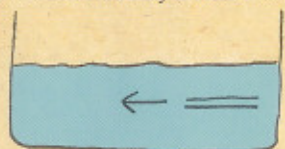
The mould with the newly-born sheet is turned over. The sheet is couched on an absorbent surface.

Dipping

Stir the contents of the vat before you start to dip, as the pulp sinks rapidly to the bottom.



Hold the mould and the deckle vertically above the vat.



Dip the mould vertically down on the side of the vat furthest away from you. Straighten the mould to the horizontal and bring it towards you.



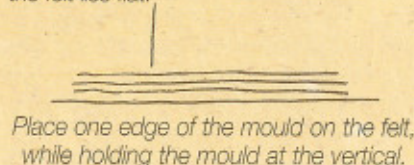
Bring the mould up above the surface of the water in a gliding and unbroken movement and shake the mould gently. Let all the water drain out of the mould.



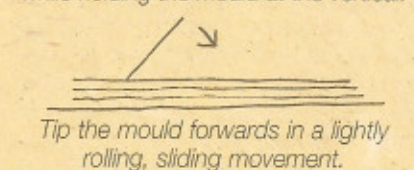
Lift the deckle carefully away from the mould. Avoid dripping onto the newly-born sheet. If you accidentally damage the sheet, turn the mould face down and lightly touch it to the surface of the water in the vat ("kissing off"). Give the vat a good stir, and dip once more.

Couching: transferring the paper sheet onto felt

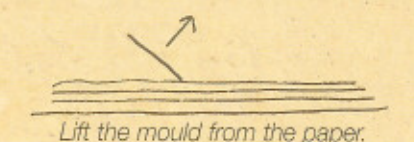
You must couch your sheet on a solid surface. A level table or a waterproof wooden board that is at least ten centimetres larger than the mould will provide a good supporting surface. The felt should be moistened slightly before use. It is worth placing some thin pieces of cloth under your felt for the first couching, in order to create a more receptive surface to couch on. Make sure the felt lies flat.



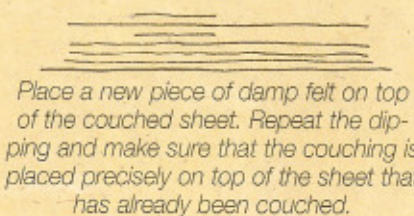
Place one edge of the mould on the felt, while holding the mould at the vertical.



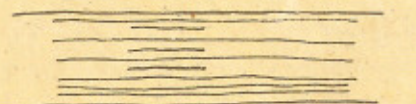
Tip the mould forwards in a lightly rolling, sliding movement.



Lift the mould from the paper.



Place a new piece of damp felt on top of the couched sheet. Repeat the dipping and make sure that the couching is placed precisely on top of the sheet that has already been couched.



When you have dipped the number of sheets you need, place a felt on top of what is called "the post", and a waterproof board on top of that.

Pressing - drying

There are many ways of pressing and drying your sheets of paper.



If you have built a post - with a wooden board at the bottom and another at the top, you can fit two clamps to it and in this way press the water out of the sheets. When the pressing is complete, you can remove the sheets from the first wet felts and put each sheet between new, dry felts. Repeat this until the sheets are dry.

If you have made your sheets one at a time, on separate felts and not in a pile, you can carefully lift the felt with the sheet, and hang it to dry on a clothes-line. You can also place a dry felt on top of the sheet and roll over the dry felt carefully with a rolling-pin. This shortens the drying process by pressing out the surplus water. Sheets of paper on felt can be dried on a net shelf. Sheets of paper dry faster when they are aired on both sides.

Aftercare

Paper without addition of glue is called "waterleaf". It is not very good to draw and paint on a sheet of "waterleaf" because the fibres absorb the colour. By adding glue to the pulp, the glue is binding the fibres and then it is better to write on the paper. Use GELATINE as glue.

Fillers

Additives in the mould of kaolin (China clay), calcium carbonate and titanium dioxide can be used to improve the density of the paper, its smoothness and its glow.

Collages with handmade paper...

The natural content of cellulose in paper can be used to mould collages. When you have dipped your handmade sheet and couched it on an underlay, you can take cuttings, or remnants of other handmade sheets which you have torn into certain shapes, and lay them on to the new-born sheet.



Making a collage

The cuttings etc. must be wet and have soaked overnight - or you can boil them lightly in a small saucepan, so that they are soft and malleable and cling to your dipped sheet. Once the handmade sheet is dry, the collage remnants will stick fast to the handmade sheet.

Watermarks



A way of making watermarks is by cutting waterproof tape in different shapes and

fasten the tape on the net of the mould. This method gives softer, light marks in the paper.