



LABORATORY COOKBOOK

by fragments studio



intentions

everything in this research is
sourced in my surroundings

biodegradable or from waste
as much as possible

my approach is exploring vari-
ous sources in order to obtain
a recipe that is both water re-
sistant (3 hours in water) and
heat resistant (less than 50
degrees)

summary

mapping.....p.

tools.....p.

molding process.....p

colors.....p

recipes.....

- mineral.....p

- animal.....p

- vegetal.....p

assembly.....p

polishing.....p

preservation

visual guide



can be sourced in waste



white page = exploring/
developping recipes



green page = final recipe



can be molded in detailed shape



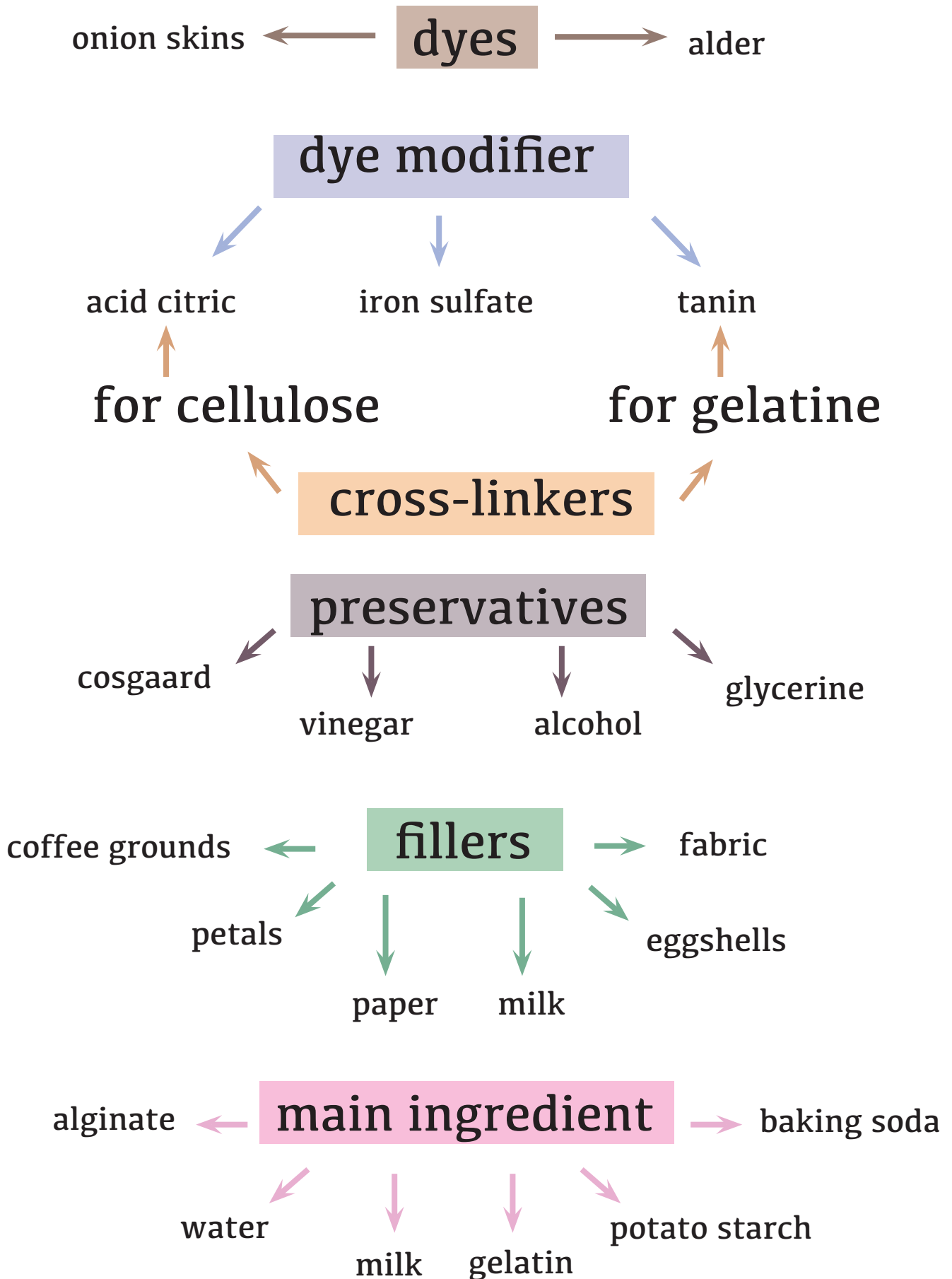
can only be molded with hands

vocabulary

cross-link:

fillers:

mapping



tools



Laboratory & Processing Equipment

Mortar and pestle (for grinding and homogenization)

Beaker (for liquid handling and preparation)

Heating vessel (saucepan, for thermal processing)

Stainless steel mixing bowls (for sample preparation)

Precision digital balance (for mass measurement)

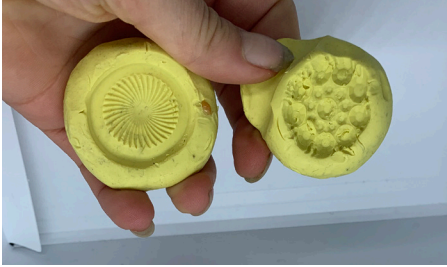
Electric hand mixer (for mechanical agitation and mixing)

Food dehydrator (for controlled drying processes)

Freezer (for low-temperature storage)

Glass stirring rod (for manual mixing and solution handling)

molding process



colors

colors are either made with natural dyes added to the water, or obtained through the fillers

natural dyes:

each dye can be modified in its opacity by diluted it with water, it can also be brightened or made darker by using citric acid (CA) or sulfated iron (SI).

orange



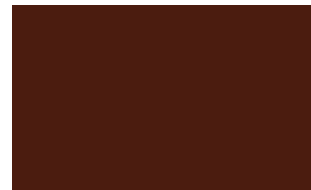
(CA) (SI)

red



(CA) (SI)

dark brown



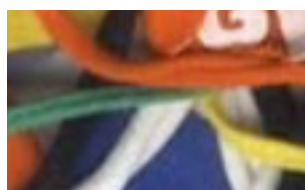
(CA) (SI)

fillers:

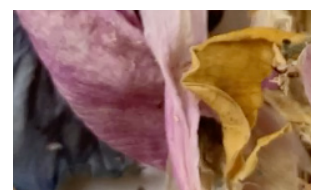
egg shells



textile



petals





recipes from mineral sources



egg shells *

Egg shells preparation

- boil and remove white foam
- dry in the dehydrator for 2h
- break into pieces

Recipe with alginate

- Pour egg shells, alginate, glycerin and water
- Use a mixer to blend everything perfectly

Pouring

- Prepare a surface by spraying it with chloride
- Pour mixture where wanted
- Spray the top of what was just poured
- Make sure it has been sprayed all over

Drying

- Remove from wet surface and place somewhere it can dry
- Or in a dehydrator for 2h

Ingredients:

100ml water

3g alginate

3g glycerin

50g eggs

100ml spray

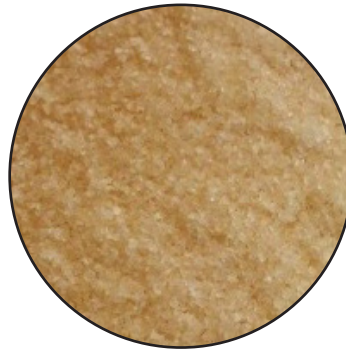
10% chloride water

Perspectives:

- playing with egg shells percentage. now it's 1/3 of the mixture
- try reducing egg shells into a powder and no chunks



recipes from animal sources



gelatin

Melting

- in a hot pan, mix all ingredients with a stirring rod
- when mixture becomes transparent because gelatine melted, continue stiring for 2 min

Pouring

- Pour into molds until the top
- Place in freezer

Drying

- Remove from mold
- Air dry for 10 days in a ventilated place

Ingredients:

100ml water

40g gelatin

2,8 glycerin

14g tanin

Perspectives:

- it is possible to reheat mixture and reuse
- should try to replace by agar-agar so that it is vegan



milk *

Melting

- in a hot pan, heat milk until 60 degrees
- out of the fire, add vinegar
- filter into a fabric so that chunks can be collected
- pour alcohol and stir within the chunks
- let drip for 1h

Pouring

- Pour into molds until the top

Drying

- Remove from mold after 3 days
- Air dry for 10 days in a ventilated place

Ingredients:

0,380L milk

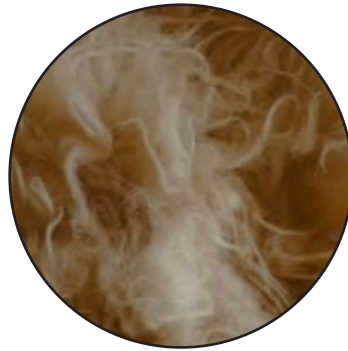
14g glycerin

10g vinegar

20ml alcohol

Perspectives:

- it is important to let it air dry in a cool place
- not all the grease is extracted with this recipe
- explore vegetal milks



wool *

Melting

- in a hot pan, mix all ingredients with a stirring rod
- when mixture becomes transparent because gelatine melted, continue stirring for 2 min while adding wool

Pouring

- Pour into molds until the top
- Place in freezer

Drying

- Remove from mold
- Air dry for 10 days in a ventilated place

Ingredients:

- 100ml water
- 40g gelatin
- 2,8g glycerin
- 14g tanin
- 5g wool

Perspectives:

- can cut hair shorter for another texture
- hairs make it impossible to have detailed molding



**recipes from
vegetal sources**



petals*

Melting

- in a hot pan, mix all ingredients with a stirring rod
- when mixture becomes transparent because gelatine melted, continue stiring for 2 min

Pouring

- Add petals at the bottom of the mould
- Pour into molds until the top
- Place in freezer

Drying

- Remove from mold
- Air dry for 10 days in a ventilated place

Ingredients:

100ml water

40g gelatin

2,8g glycerin

14g tanin

5g petals

Perspectives

- can grind petals more for a multicolored aspect or the opposite, keep one petal whole and place decoratively in the button



coffee grounds*

Melting

- mix water and coffee first
- in a hot pan, mix all ingredients with a stirring rod
- when mixture becomes transparent because gelatine melted, continue stirring for 2 min

Pouring

- Pour into molds until the top
- Place in freezer

Drying

- Remove from mold
- Air dry for 10 days in a ventilated place

Ingredients:

100ml water

40g gelatin

2,8g glycerin

14g tanin

20g dried
coffee
grounds

Perspectives :

- it is important to freeze right after pouring otherwise coffee falls at the bottom of the mold



potato starch / wrinkly

Melting

- in a hot pan, mix all ingredients with a stirring rod
- heat until thick

Pouring

- Pour into a piping bag
- Wait a couple minutes so that it cools down
- Make small batch on a surface such as a glass or mirror

Drying

- Air dry for 10 days in a ventilated place
- or place in dehydrator for 4 hours on 50 degrees

Ingredients:

20g potato starch

10 ml vinegar

10ml glycerin

100ml water

Perspectives:

- it is very slimy when pouring, new pouring methods are worth searching



potato starch / clay

Melting

- in a hot pan, mix all ingredients and keep stirring
- heat until thick
- Turn off once it starts boiling

Pouring

- Wait a couple minutes so that it cools down
- Mold into balls with your hands
- Flatten on a surface

Drying

- Air dry for 10 days in a ventilated place
- or place in dehydrator for 4 hours on 50 degrees

Ingredients:

125gr sodium bicarbonate

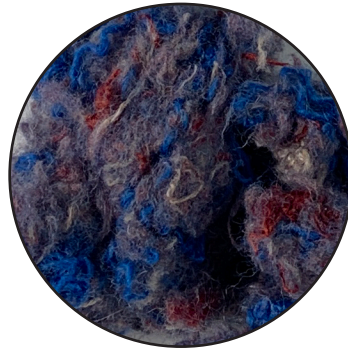
62gr of potato starch

88ml of water

2ml Vinegar

Perspectives:

- it is very crumbly so adjustments in the recipe would be necessary



textile*

Melting

- mix water and textiles first
- in a hot pan, mix all ingredients with a stirring rod
- when mixture becomes transparent because gelatine melted, continue stirring for 2 min

Pouring

- Pour into molds until the top
- Place in freezer

Drying

- Remove from mold
- Air dry for 10 days in a ventilated place

Ingredients:

100ml water

40g gelatin

2,8g glycerin

14g tannin

20g shredded textile

Perspectives :

- the more shredded the textiles the better
- could also play with lace as a texture
- can also play with textile ratio