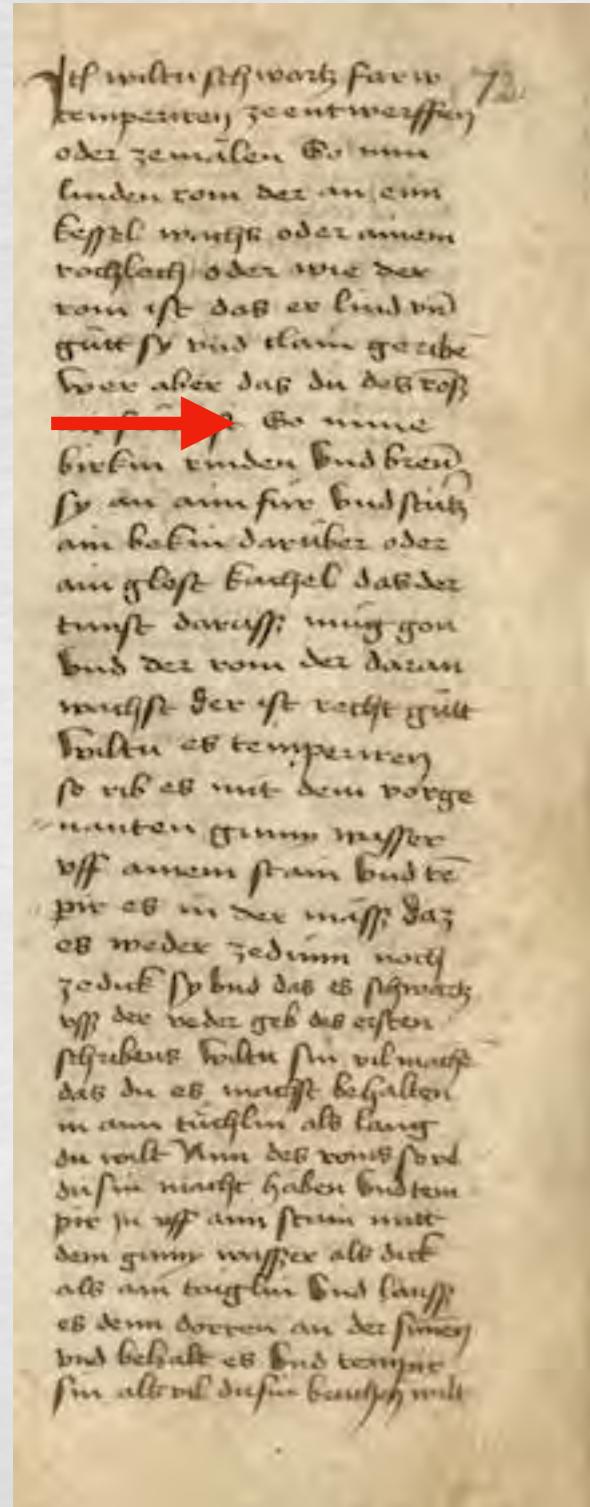




# Birch bark black

Reconstruction  
Recipe by Anonymous, 1454-63

# Recipe (1454-63)



Cod. Germ. 1. 1454-1463, Hamburg, Staats-und Universitätsbibliothek,  
Cod. Germ. 1: fol. 73r, right column.

## Diplomatic (de)

**Item** **wiltu schwartz farw / temperiren ze entwerffen / oder zemälen [...]**

So nime **birkin rinden** Vnd brenn sy an aim für Vnd stütz ain bekin darüber oder ain glest kachel das der tunst daruff mûg gon Vnd der rom der daran wachst der ist recht gütt **Wiltu es temperiren** so rib es mit dem vorgenannten gumy wasser vff ainem stain Vnd tempir es in der mäsß **Daz** es weder zedünn noch zedick sy Vnd das es schwartz vsß der veder geb des ersten schribens **Wiltu sin vil machen** das du es machst behalten in aim tüchlin als lang du wilt **Nim** des roms so vil du sin macht haben Vnd tempir jn vff aim stain mitt dem gumy wasßer als dick als ain taiglin **Vnd lausß** es denn dorren an der sunnen vnd behalt es **Vnd tempir** sin als vil du sin bruchen wilt

## Normalized (de)

**Item Das Temperieren von schwarzer Farbe zum Entwerfen oder zum Malen.**  
[...]

so nimm Birkenrinde und verbrenne sie in einem Feuer und stürze ein Becken darüber oder ein glasiertes Gefäß, aber so, dass der Dunst / Rauch entweichen kann. Der Ruß, der sich daran absetzt, der ist richtig gut.

Wenn du ihn mischen willst, so reibe ihn mit dem vorgenannten Gummiwasser auf einem Stein. Und mische es so, dass es weder zu dünn noch zu dick wird und das es beim ersten Schreiben schwarz aus der Feder kommt.

Falls du so viel davon machen willst, daß du es in einem Tüchlein aufbewahren kannst so lange wie du willst: Dann nimm von dem Ruß so viel du davon haben möchtest und mische ihn auf einem Stein mit dem Gummiwasser so dick wie einen Teig. Lass diesen dann an der Sonne trocknen und bewahre das auf. Bereite davon so viel wie du gebrauchen willst.

## Translation (en)

**Item Tempering black paint for designing or painting.**  
[...]

so take birch bark and burn it in a fire and place a basin or glazed earthen vessel over it, in a way that the smoke can escape. The soot that deposits on it is really good.

If you want to temper it, grind it on a stone with the aforementioned gum water. And mix it so that it is neither too thin nor too thick and that it comes out of the quill in black the first time you write it.

If you intend to make so much that you can keep it in a cloth for as long as you want: then take as much of the soot you want and temper it on a stone with the gum water as thick as a dough. Then let it dry in the sun and keep it. Temper as much as you want to use.



# Handout instructions

## Source

Anonymous. 1454-63. 'Codex Germanicus 1', Staats- und Universitätsbibliothek Hamburg, fol. 73r, right column

## Ingredients & equipment

Birch bark

Lighter

1 fire-proof glazed earthen vessel

1 china plate or porcelain

1 feather

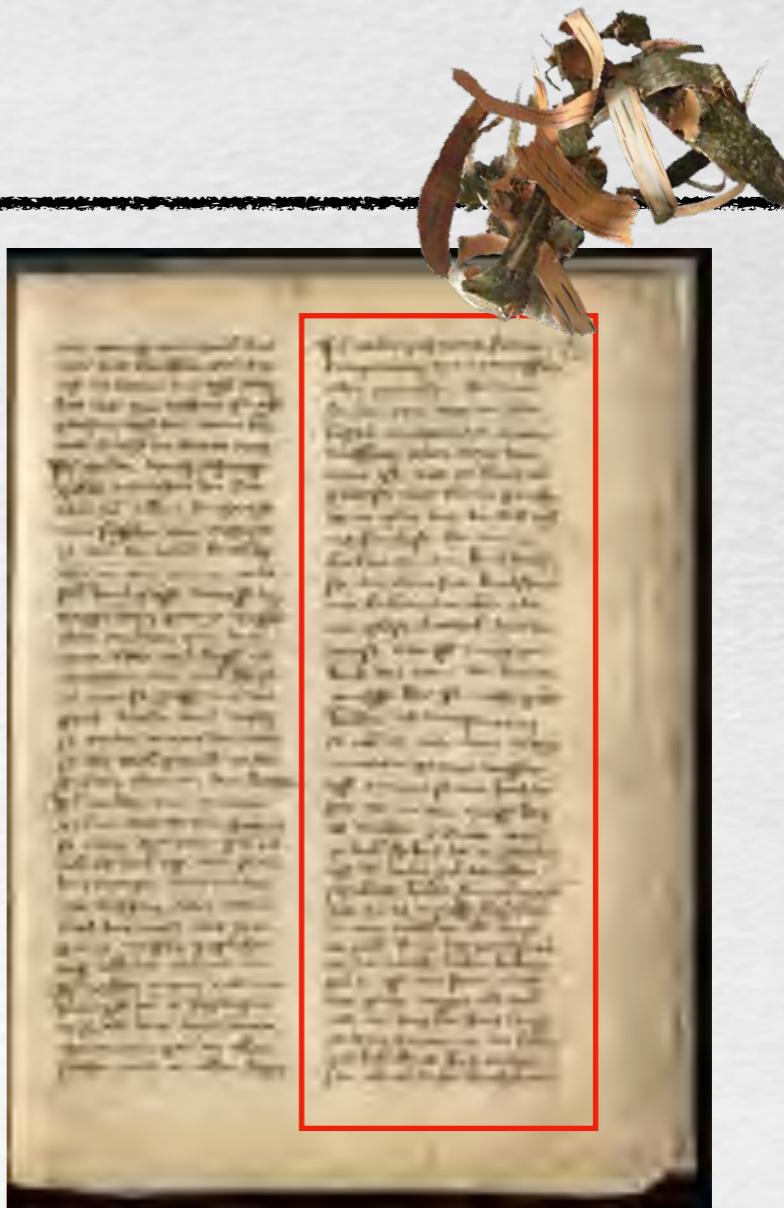
Paper

Grinding stone, muller and water

Aqueous solution of gum Arabic

## Preparation steps

- (1) Collect birch bark
- (2) Burn the birch bark. Place a basin or glazed vessel over it so that the soot can deposit but the smoke escapes
- (3) Remove the deposited soot from the covering vessel with a feather into a paper
- (4) Dissolve gum Arabic in water
- (5) Grind the birch-bark soot on a stone with the gum Arabic solution so that it is neither too thin nor too thick



Date & place Amsterdam, April 2020

Name B. Reissland, Jenny Boulboulé

# Photo report: step-by-step reconstruction

## 1. Collect birch bark



Loose birch bark can easily be peeled off the trunks of birch trees. The bark of older trees is thicker and difficult to remove. Thinner bark is easy to collect.



# Photo report: step-by-step reconstruction



## 2. Burn birch bark in a vessel covered with a china plate



The birch bark peels are thin and they contain resin. Hence they burn very fast. For this reason, many cultures use birch bark as tinder.

The birch bark is ignited in a fire-proof vessel.

A china plate is placed over the vessel as cover to collect the soot on its smooth surface. Some space should be kept open to let smoke escape and to guarantee oxygen supply.

# Photo report: step-by-step reconstruction



## 3. Remove soot from china plate



Some historic recipes advise to collect soot with a feather.

Residues of resinous material showed as local glossy areas.

The first layer of loose soot was quite easy to remove, but the lower particles adhered quite strongly to the porcelain. It was not easy to remove, neither with a feather nor a brush, probably due to its resin content.

# Photo report: step-by-step reconstruction



## 4. Dissolve gum Arabic in water



After about 5 hours

# Photo report: step-by-step reconstruction



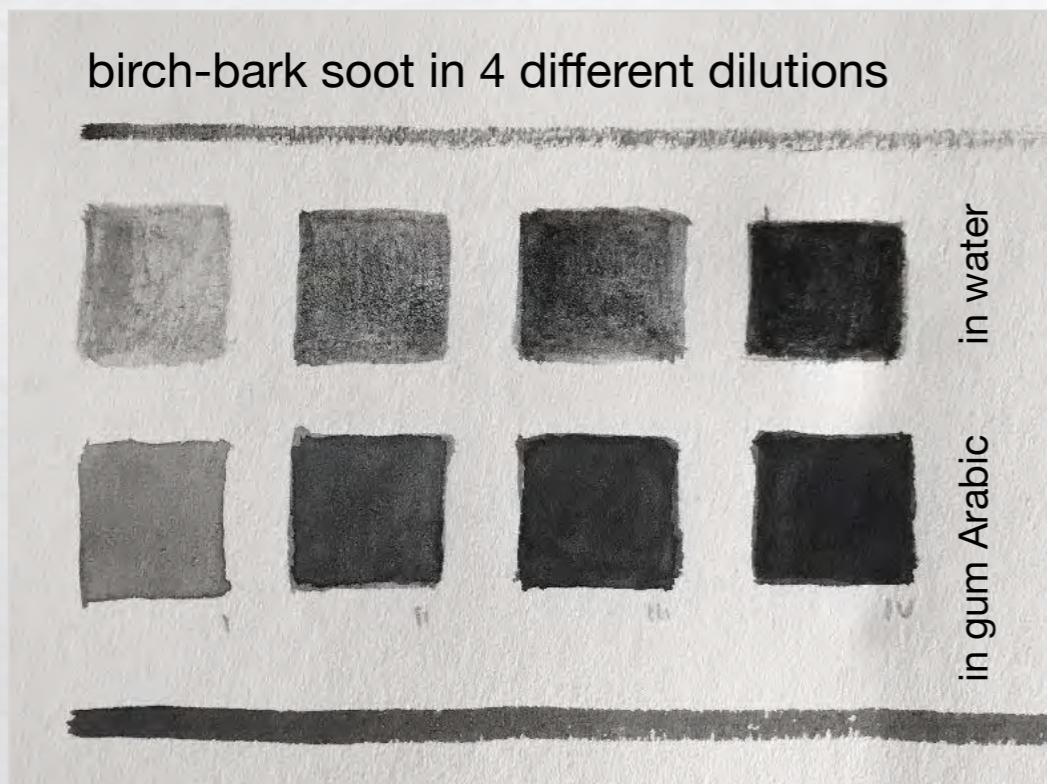
## 5. Grind soot on a stone with the gum Arabic solution



Birch bark soot in water



Birch bark soot in gum Arabic



Birch-bark soot is hydrophobic. It floats on the surface of water and does not form a smooth layer on paper.

Ground with gum Arabic, birch-bark soot results in a uniform, black-coloured watercolour.

# What did we learn during the reconstruction?



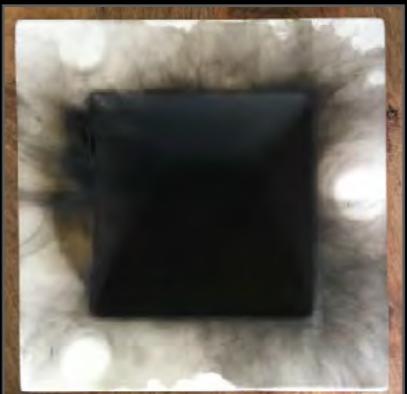
It was quite easy to peel off pieces of birch bark.

Birch bark contains resin and therefore is a perfect tinder.

Together with soot, also resin precipitates on the surface of the cover and is locally visible as glossy areas.

A feather works well to collect soot, but birch-bark soot adheres quite strongly to the surface of a china plate.

Gum Arabic is crucial for the formation of homogeneous films of birch-bark water colour.





Enjoy your own reconstructions  
and share them with the field !

Birgit Reissland

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Heritage on paper and related materials

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