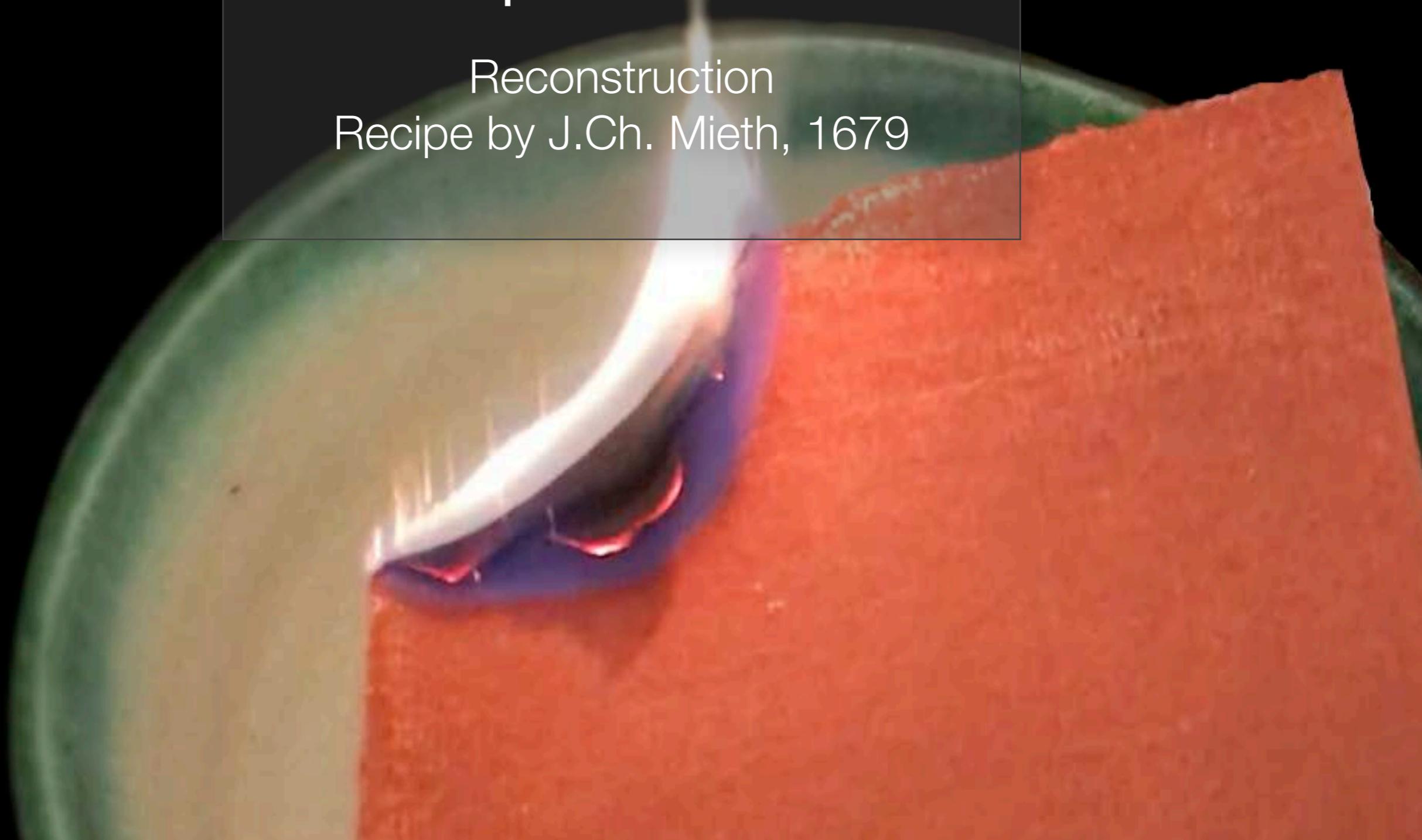
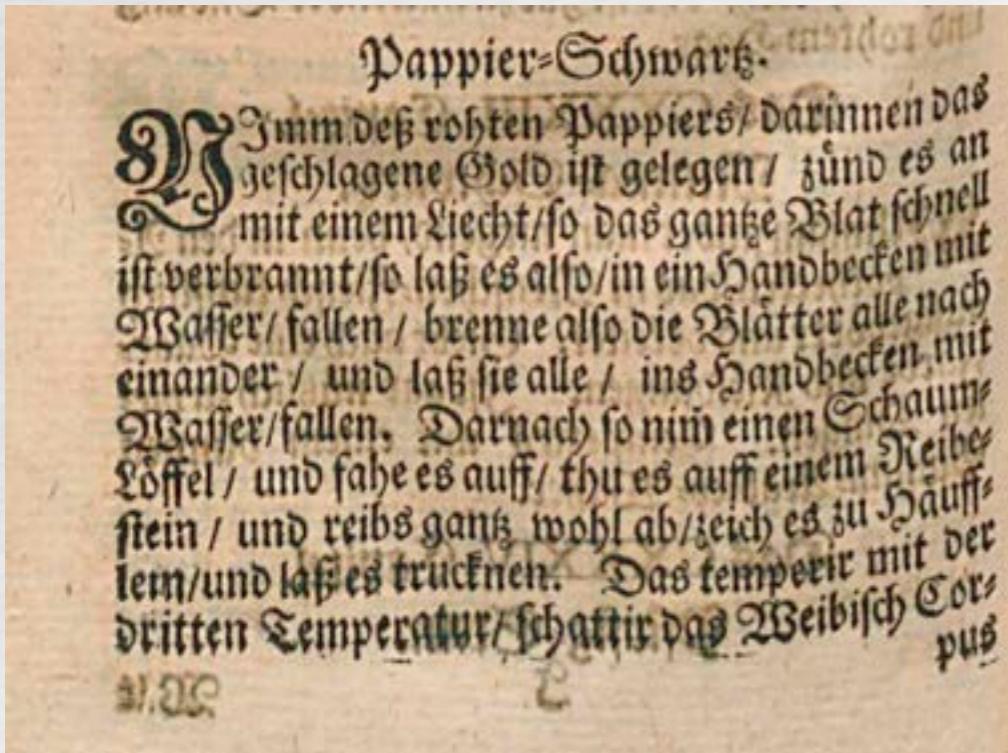


Paper black

Reconstruction
Recipe by J.Ch. Mieth, 1679



Recipe (1679)



Diplomatic transcription:

Pappier-Schwartz.

Nimm des rothen Pappiers / darinnen das geschlagene Gold ist gelegen / zünd es an mit einem Liecht / so das ganze Blat schnell ist verbrannt / so laß es also / in ein Handbecken mit Wasser / fallen / brenne also die Blätter alle nach einander / und laß sie alle / ins Handbecken mit Wasser / fallen. Darnach so nimm einen Schaum-Löffel / und sahe es auff / thu es auff einem Reibestein / und reibs ganz wohl ab / zeich es zu Häuflein / und laß es trucknen. Das temperier mit der dritten Temperatur / schattir das Weibisch Corpus.

Normalised (German)

Papier-Schwarz.

Nimm das rote Papier worin das geschlagene Gold liegt. Zünde es an mit einem Licht, so daß das ganze Blatt schnell verbrannt ist. So laß es also in ein Handbecken mit Wasser fallen. Verbrenne auf diese Art alle Blätter nach einander und laß sie alle ins Handbecken mit Wasser fallen. Danach nimm einen Schaumlöffel und seihe es ab. Auf einem Reibestein reibe es ganz gut. Zieh es zu Häuflein und laß es trocknen. Das temperiere [= mische] mit der dritten Temperatur [= Bindemittel].

Translation (English)

Paper = black.

Take the red paper on which beaten gold is placed. Light it with a light so that the whole sheet is burned quickly. Let it fall into a hand basin with water. Burn all leaves one after the other and let them fall into the hand basin with water. After that, take a slotted spoon and strain. Grind it well on a grinding stone. Form small heaps and let dry. Temper this with the third temperature [=binding medium].

Handout instructions

Source

Mieth, Johann Christoph. 1679. Der Curiose Mahler. Dresden. p. 114.
<http://digitale.bibliothek.uni-halle.de/vd17/content/titleinfo/8227374#>.

Ingredients & equipment

Paper (10 x 10 cm) coated with red chalk or bole (size and coating are consistent with historic paper used for booklets of gold leaves).

Lighter, fire tongs

Bowl with water

Slotted spoon

Grinding slab stone, muller, water

Gum Arabic solution

Preparation steps

- (1) Prepare the paper with red chalk to simulate gold-beaters paper
- (2) Place a basin with water on a fireproof base
- (3) Light it with a fire
- (4) Let it fall into the water
- (5) Take the burnt paper out with a slotted spoon
- (6) Transfer to the grinding stone
- (7) Grind the powder on the stone with a muller and water
- (8) Add gum Arabic before use as water colour

Date & Place

Amsterdam, January 2021.

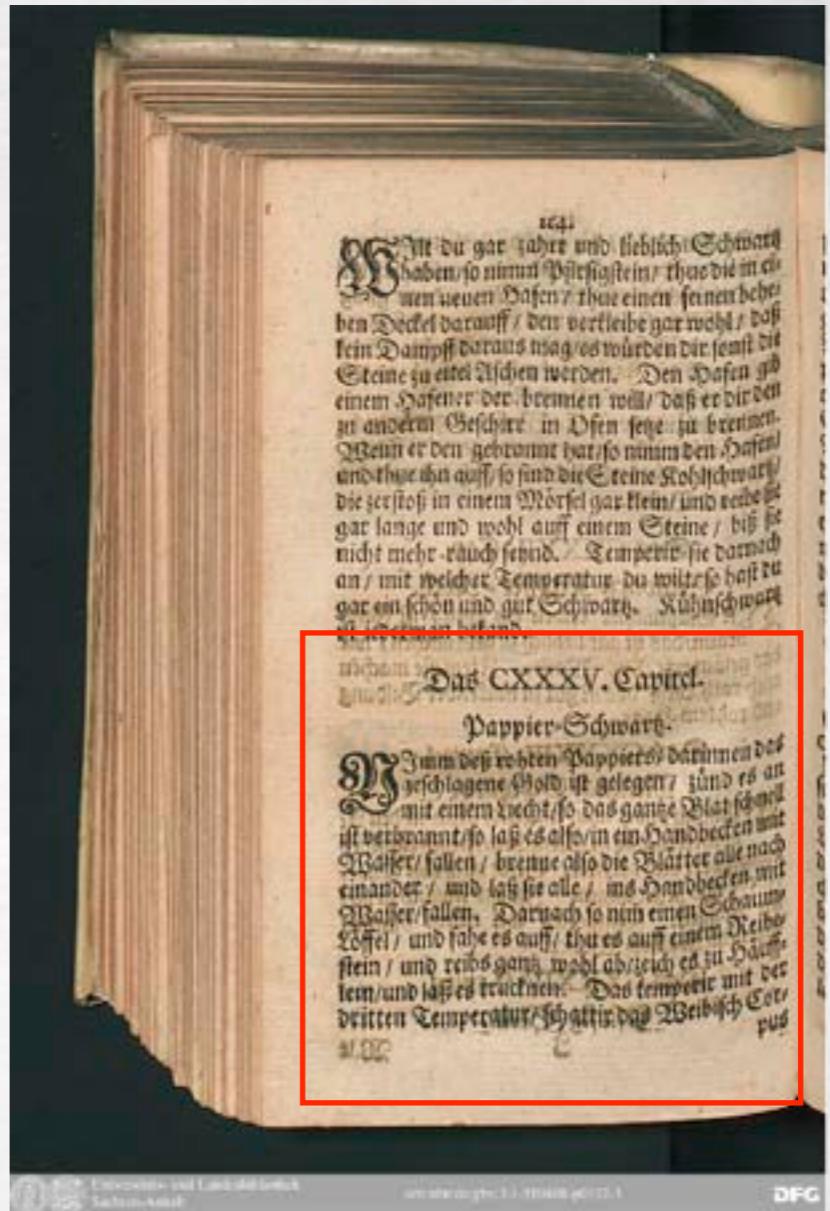
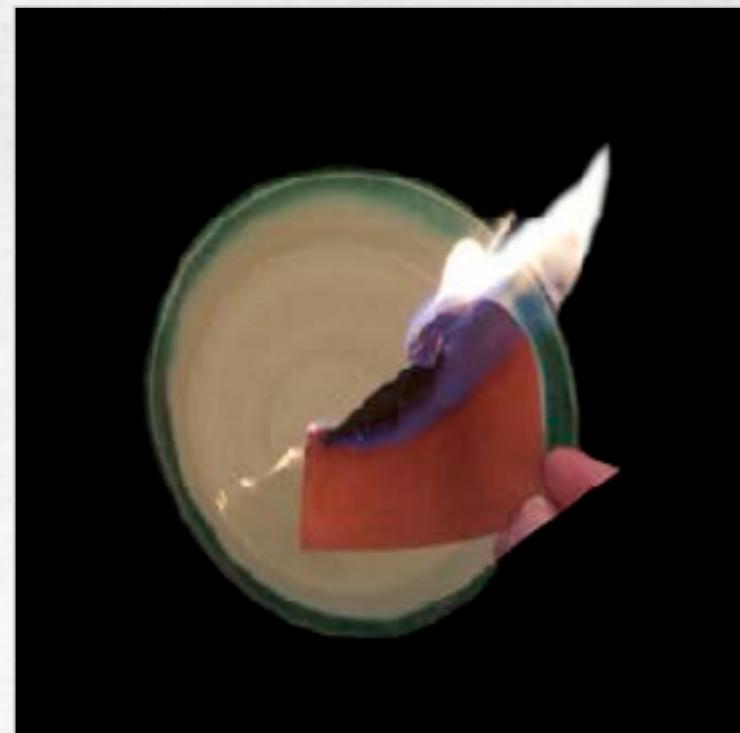
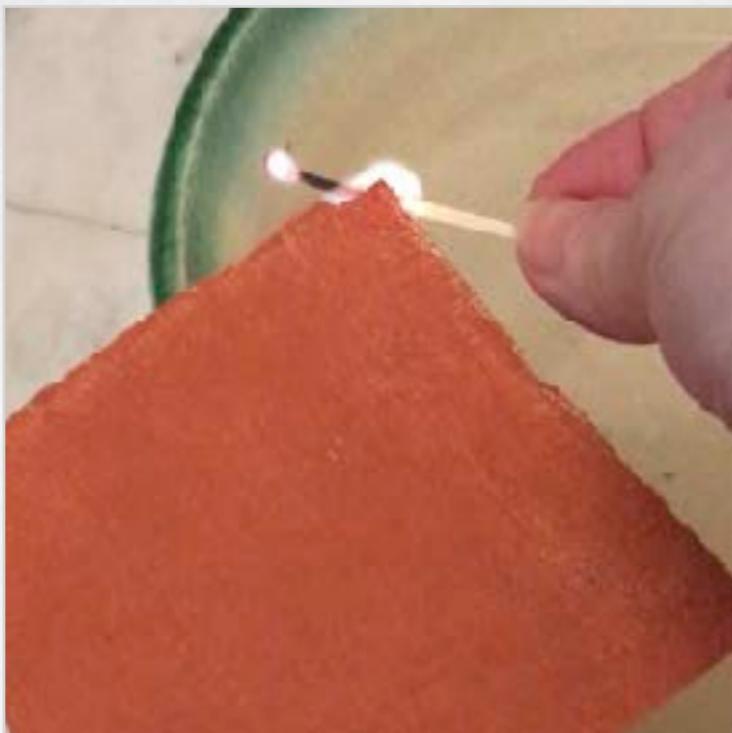


Photo report: step-by-step reconstruction

1. Prepare paper with red chalk and burn it



Cover paper with red chalk
(here an early 19th century
paper is used).

Light it and burn over a basin
filled with water.

Let it fall into the water.

Take it out. It is very brittle. The
recipe advises to use a slotted
spoon which is definitely a
good idea for larger quantities.

Photo report: step-by-step reconstruction

2. Grind the burnt paper



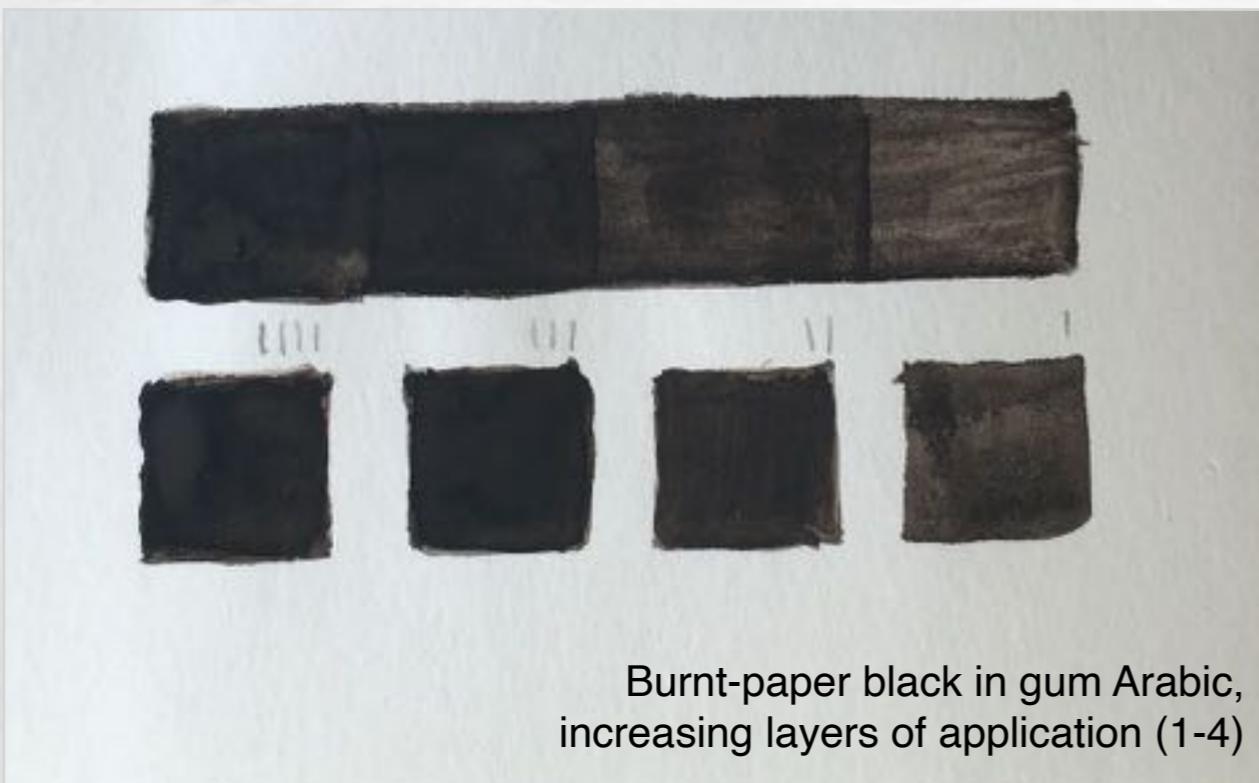
Separate burnt paper from unburnt parts. The wet, burnt paper is extremely brittle and disintegrates easily.

It can be ground directly when taken out of the water in wet condition.

The resulting colour is brown, due to the presence of iron-oxide in the paper coating.

Photo report: step-by-step reconstruction

3. Add gum Arabic, transfer paint into a shell and apply on paper



Add some drops of gum Arabic to make paint.

Transfer into a sweet-water shell and apply on paper with a brush.

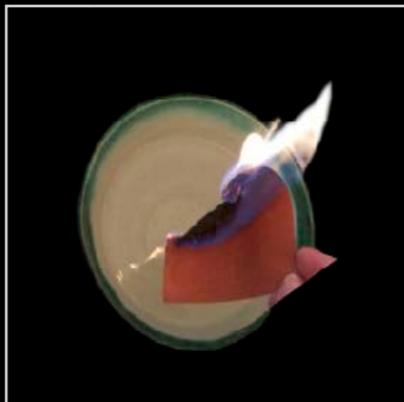
What did we learn during the reconstruction?

The recipe has older roots. It is published by Boltz van Ruffach in 1549 and in several subsequent treatises.

Making black pigment from burnt-paper is obviously a 'recycling' method for paper booklets used to sell gold leaf. Each booklet contained 25 leaves of beaten gold, silver or other metals.

It took a while to find a source which explains the red colour of the paper which all recipes refer to. William Lewis finally provided the answer. In order to prevent sticking of the metal, the paper was coated with red bole and smoothed (Lewis 1763, *Comm.phil.-techn.*, p.49).

The red coating impeded writing. This explains why these papers had no use as note paper which would have been a logical secondary use.



What did we learn during the reconstruction?

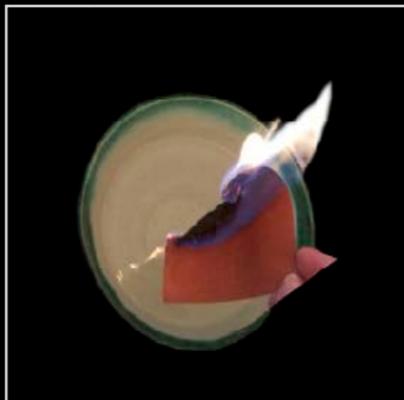
The recipe prescribes to burn loose pages. These burn quite fast. Burning a bound booklet might take some more time.

Holding the paper with fire tongs instead of your fingers will aid to burn the paper completely, and safe your fingers :)

Fishing the burnt paper remains out of the water is surely easier with a slotted spoon, as the author of the recipe already recommended.

The resulting colour is brown, not black.

The colour contains iron oxide, and could be mistaken for brown ochre instead.





Enjoy your own reconstructions !

Birgit Reissland

Senior Heritage Scientist
Heritage on paper and related materials

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