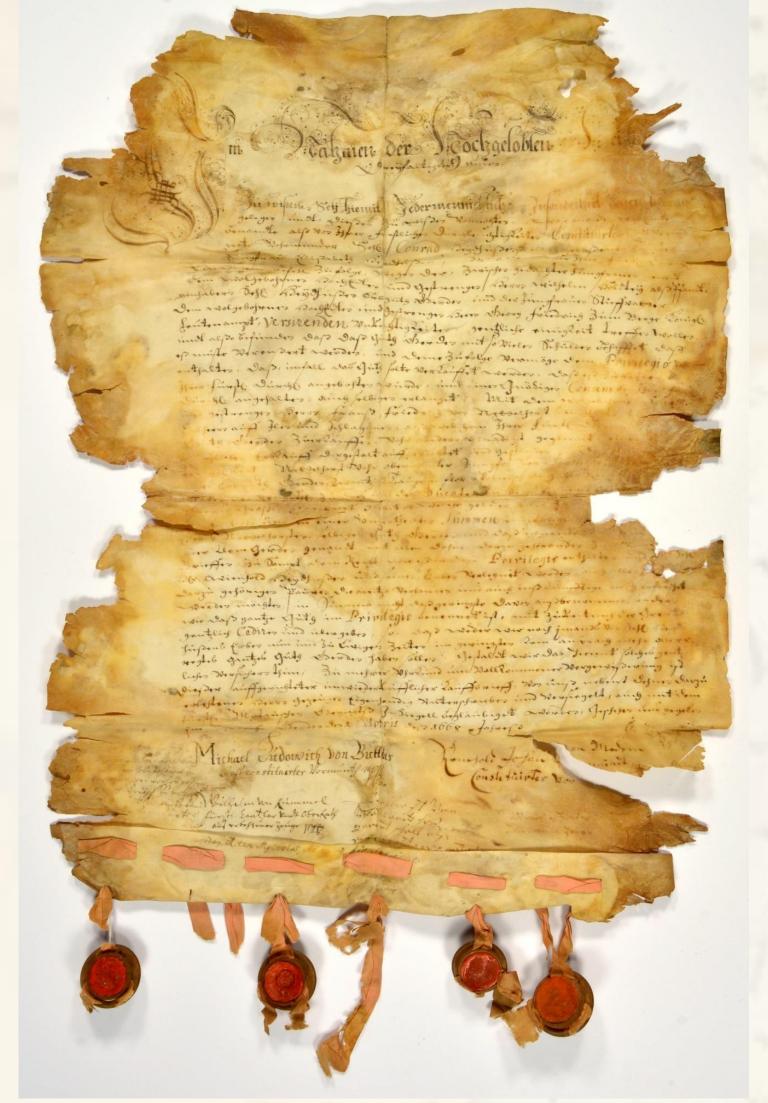




## Restoration of water damaged parchment

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INTRODUCTION: In 2018 an inventory of the parchment document collection was conducted in the Latvian State Historical Archive to prepare this collection for full digitization. During the inventory it was found, that some parchment documents could not be digitized or otherwise due to their poor physical condition. As a result, there is an urgent need for conservation or restoration to stabilize the existing state and prevent its deterioration.

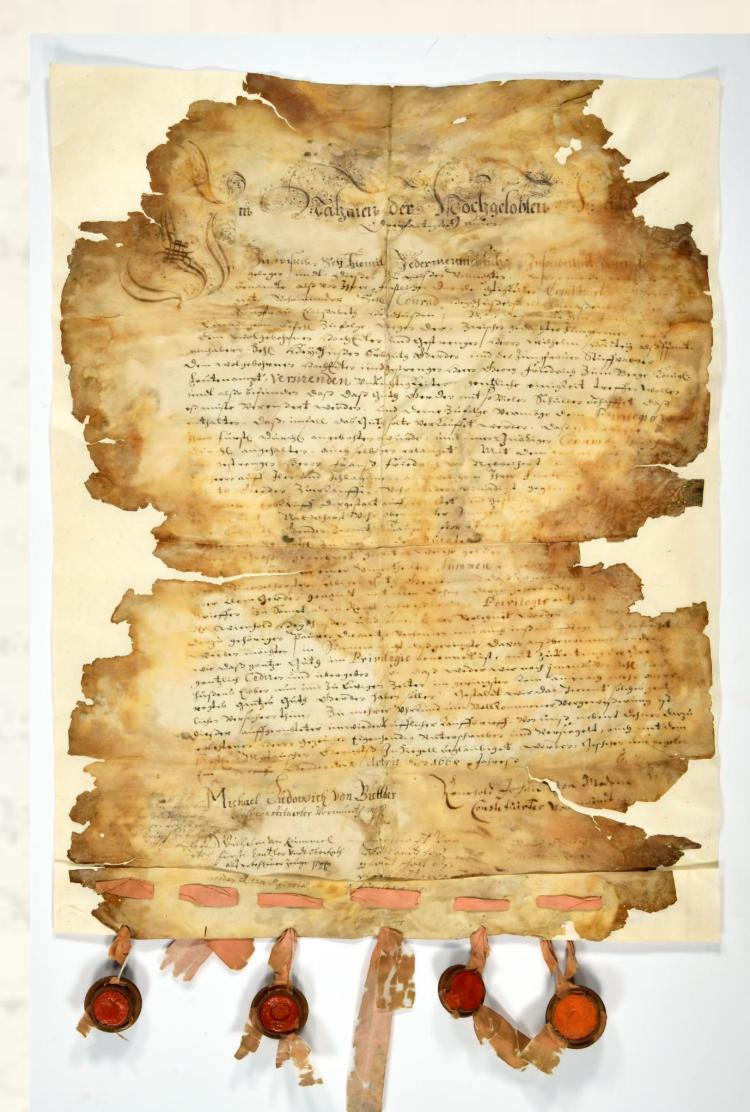


Parchment before restoration (obverse)

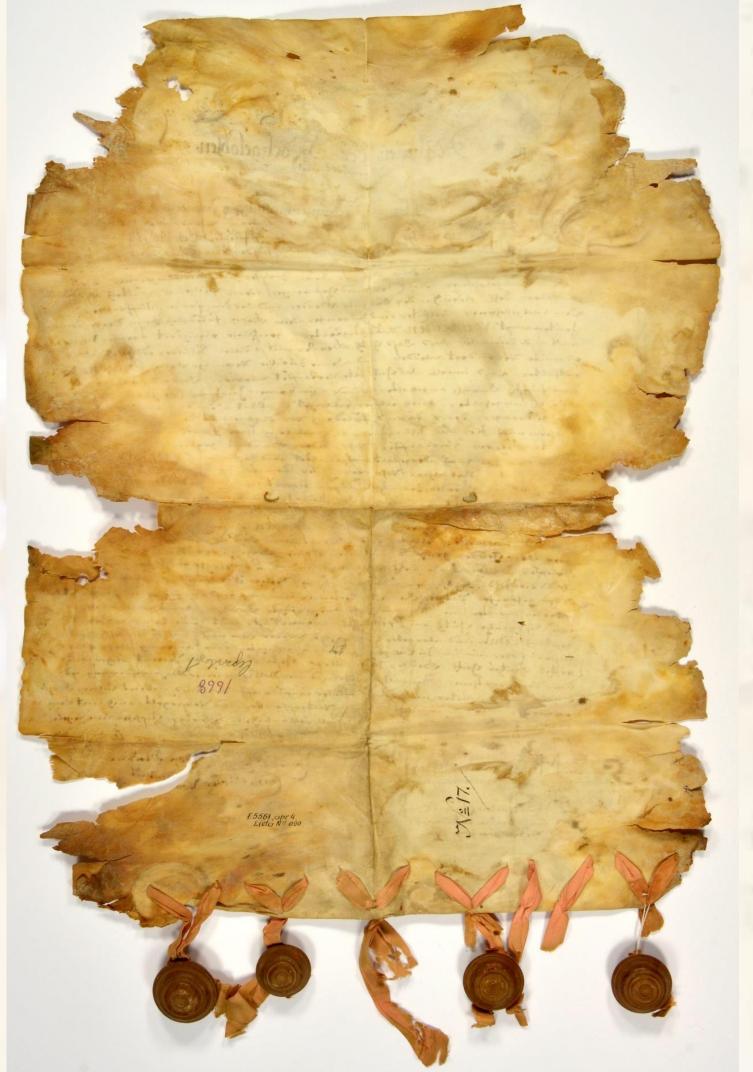
**DESCRIPTION OF THE OBJECT:** The document consists of one sheet of parchment (date 1668) with four red wax pendant seals. Seals are attached to the parchment by pink silk ribbons. The protective capsules were made of wood. Two seals are lost, only fragments of ribbons have left. The parchment was folded in eight parts. The text is written in dark brown ink.

**DESCRIPTIONS OF DAMAGES:** Parchment was covered with dirt, exposed to the effect of moisture. Along the edges there are large amount of tidelines, yellowing, browning. From the oreols of leaking, it can be concluded that the parchment was exposed to the moisture in the folded form.

As a result of damages mentioned above, parchment is deformed, slightly shrunk along the edges, very fragile around the perimeter. Lost parts of original material, especially in the corners. Text was fading, bleaching due to damage. Silk ribbons has became fragile, with losses, partially yellowed. Wax seals covered with dirt.



Parchment after restoration (obverse)



Parchment before restoration (reverse) cardboard.

PROCESS OF RESTORATION: Dry surface cleaning, wet cleaning (70% isopropyl alcohol-30% water), plasticization (30% isopropyl alcohol-23% water-7% glycerin), flattening and drying of parchment. Japanese paper and starch paste glue was used for the repairs (loss, tears and fragile parts). Silk ribbons were strengthened. Seals were cleaned with a dry brush. Then covered with a compress of water-moistened cotton wool. The wax was cleaned with moistened cotton buds.

PACKAGE: An appropriate quality cardboard box was made for parchment with a removable base and special fastenings, to reduce the load on the fragile silk ribbons. The parchment was attached to the base with a transparent plastic corners and removable strips. Strips were attached with self-adhesive Velcro fastenings. Special fasteners for seals were made of thin



Parchment after restoration (reverse)









Seals before restoration



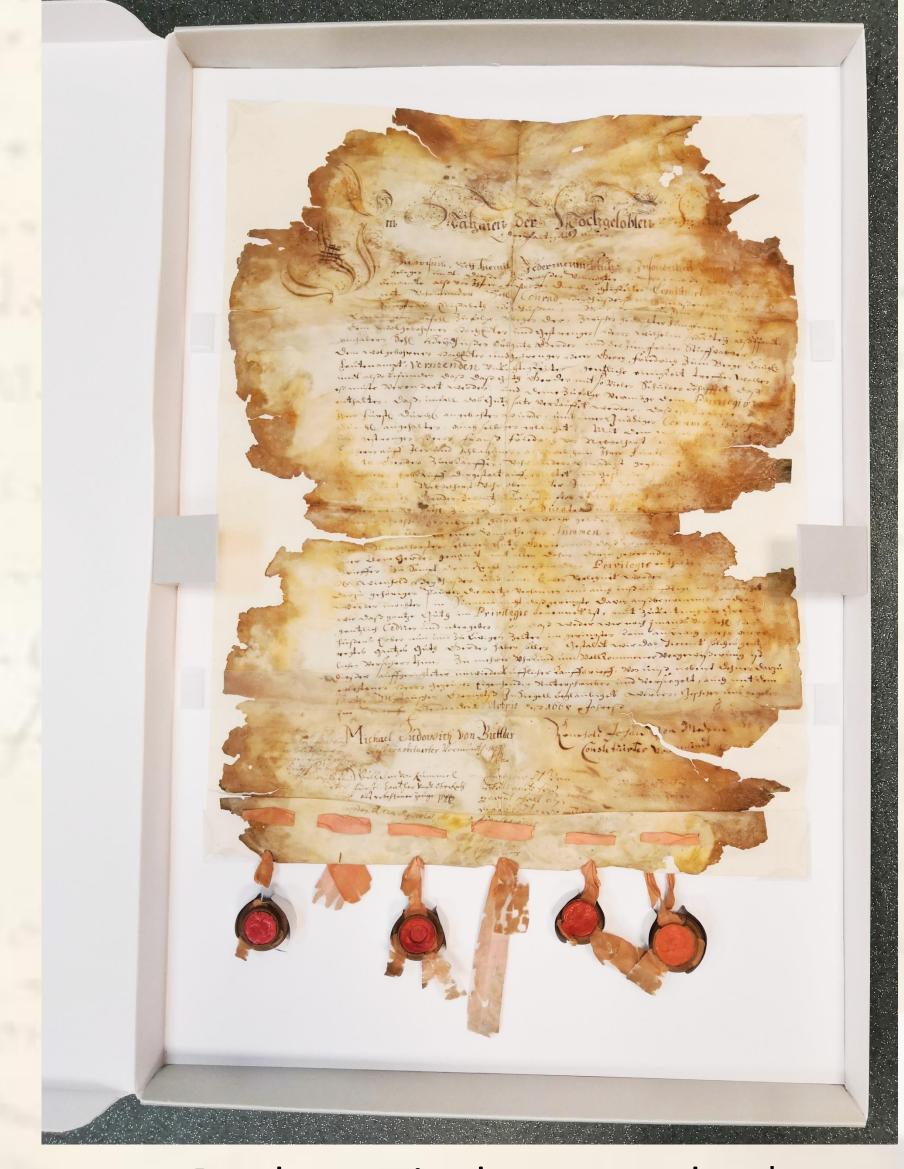
Seals wet cleaning\*



Seals after restoration



Storage box with special fastenings for parchment and seals



Parchment in the storage box\*