Historical Restauration by Image Inpainting
Incorporating multiple modalities and prior knowledge
MSc Thesis Project

The goal of this project is to study image inpainting techniques for historical restauration, or from a more computer vision / machine learning / deep learning perspective the goal is to incorporate prior knowledge to (deep) inpainting and/or the use of multiple modalities for inpainting. The prior knowledge stems from known handwritings and calligraphy, while the multiple modalities are obtained from different chemical analyses of the object.

The research is in close collaboration with the Rijksmuseum and concerned about a plaque from the so-called 'Merkelsche Tafelaufsatz' from Wenzel Jamnitzer in 1549, (figure on the right). This is one of the most famous masterpieces in goldsmithing from the sixteenth century. Recently this object has been extensively studied and one of the _____ the so far undiscovered remnants of a largely _____ plaque fixed to the bottom of the piece (Fig 1.a).

_____ would be to make the text of the plaque visible again. _____ ting techn _____ e main n _____ out the m _____ (non-dest _____ e of the c _____

_____ DeepLear _____

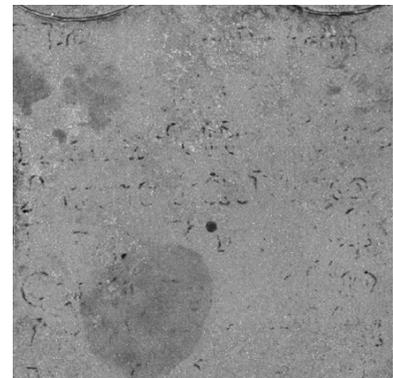_____ homas.mensink@uva.nl)

Fig 1.a: Original plaque

Fig 1.b: X-Ray observation

Fig 1.c: Copper measurements