



# A ROMAN GOLD GLASS IN ETHANOL

Investigations and development of a concept for an ethanol deposited Roman Gold Glass from the Museum of Byzantine Art Berlin.

Within the framework of the Masterthesis, model effects will be used to determine to what extent storage in ethanol influences historical glasses. In the center of the project is a Roman gold glass (Inv. Nr. 6700) from the Museum of Byzantine Art of the Staatliche Museen zu Berlin, which is deposited about 100 years in ethanol. (Fig. 1)

## Object description

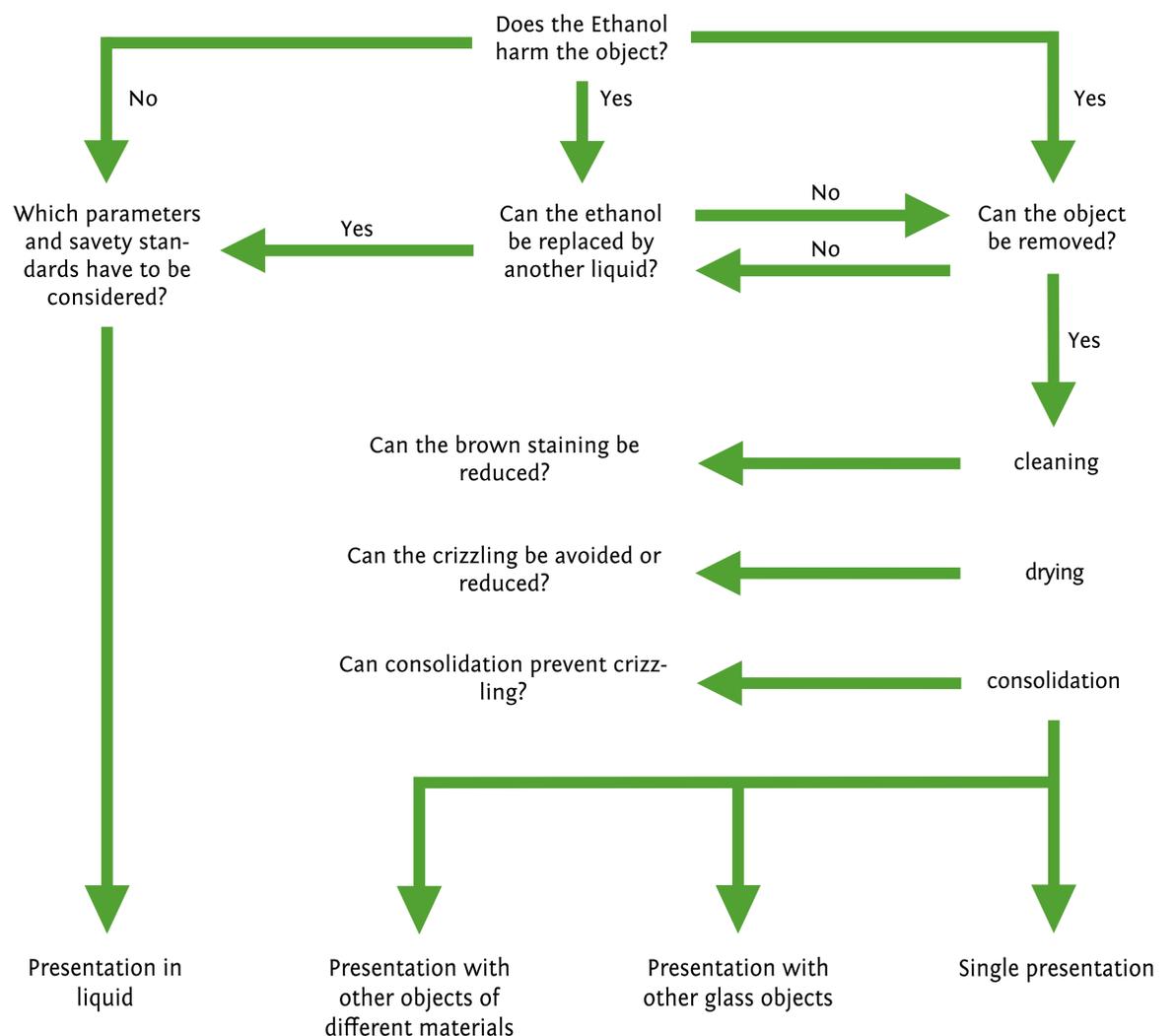
The gold glass can be dated back to the first half of the IVth century. The iconography shows Jewish symbols rectangular framed by an arched moulding. The image zone is splitted into three areas. The upper part shows an open torah shrine, two menorah candlesticks, an etrog fruit, a lulaw bouquet, an amphora and two palm leaves, the middle a greeting in Latin and the last part a dining scene with a plate of fish on the table and an ancient dining kline. The menorah candlesticks and the scrolls in the shrine are green and red inlays [1]. (Fig. 2)



Fig. 1: Current deposition of the glass in ethanol.



Fig. 2: Illustration of the gold leaf iconography with inlays.



## Object history

The origin of the gold glass is corresponding to the catacomb of the Vinga Ranadanini in Rome and arrived as an anonymous gift [2]. The surface of the glass shows a crizzling layer and the iconography couldn't be seen clearly. After treatments to recover the transparency didn't work, the object was deposited in ethanol [3].

## Project goals/methodology

The aim is to describe the behaviour of ancient glasses which are long term deposited in ethanol and find a solution for the future deposition.

In order to assess the leaching potential of ethanol, differently weathered samples are evaluated. The sample used for this purpose are polished model glasses of the type M 1.0 from the Fraunhofer Institute for Silicate Research with the following composition: SiO<sub>2</sub> about 54% by weight, CaO about 17% by weight, K<sub>2</sub>O 29% by weight.

For examination, the glasses were exposed to 50 ml distilled water, ethanol and under water vapor by a constant climate up to 40 °C over 6-8 weeks. To determine the potential for changes and damage, light microscopy and scanning electron microscopy were used as analytical methods. For the further preservation and possibilities of the presentation of the gold glass, a concept is to be worked out from the gained insights.

The results will be published in 2020.

## Literature

- [1] SCHMIDT 1980: Theun-Mathias Schmidt, Ein jüdisches Goldglas in der frühchristlich-byzantinischen Sammlung. in: Forschungen und Berichte, 150 Jahre Staatliche Museen zu Berlin, Bd. 20, Berlin 1980, 273-280.
- [2] WULFF 1913: Oskar Wulff, Kaiser-Friedrich-Museum. Neuerwerbungen der altchristlichen Sammlung. in: Amtliche Berichte aus den Königlichen Kunstsammlungen, Berlin 1913, 31-34.
- [3] RATHGEN 1922: Friedrich Rathgen, Zur Aufstellung und Erhaltung eines jüdischen Glases aus frühchristlicher Zeit. in: Der Sammler (Wochenschrift für alte und neue Kunst), Vol. 12, Berlin 1922, 520-521.