



## Christian Degrigny's STSM

# "Application of ENDLESS Metal analytical tools in the context of Polish Cultural institutions: National Museum, Second World War

Museum and the National Maritime Museum, Gdansk"

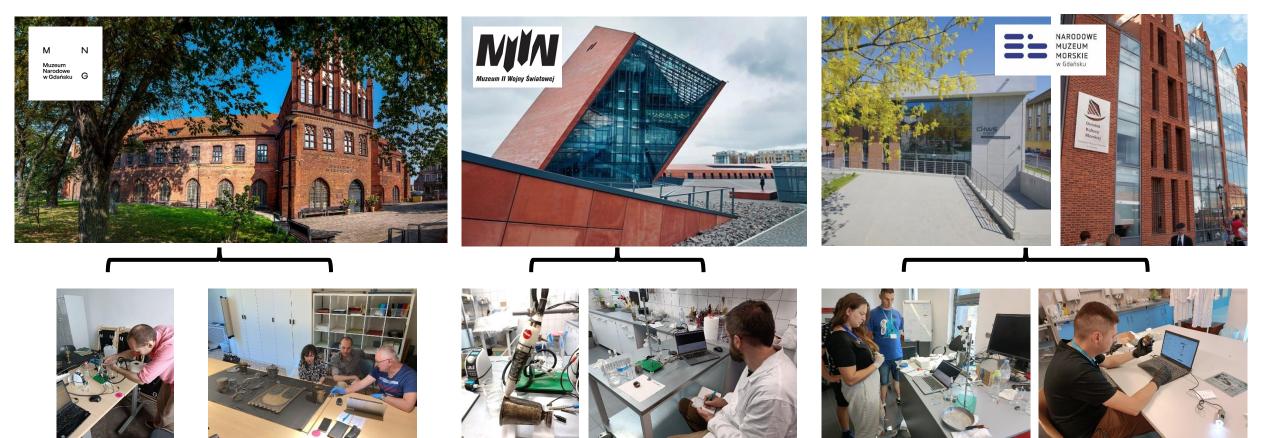


Pleco

 $\cong$  MICORR



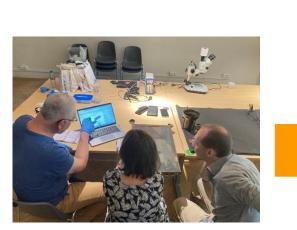
#### 19-20 June 20-21 June 22-23 June







Pleco



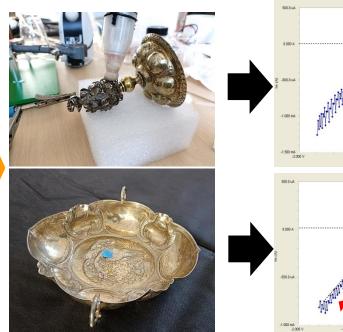
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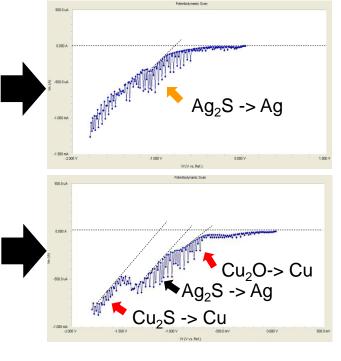


Ν

G

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Muzeum Narodowe w Gdańsku





< 3%wt Cu

> 3%wt Cu

N°	Objects	MiCorr proposal (metal family)
1	Nuremberg plate, 16 <sup>th</sup> c.?, fake? pewter?	Zinc-based alloy with tin coating?
2	German mortar, 18th c.?, Gothic style	Bronze
3	Cu-based mortar, 1567	Bronze
4	Candle stick	Bronze
5	Reliquary base, gilded copper alloy?	Gilded copper
6	Container, Baroque period, Pb-based?	Pb-Sn alloy
7	Asiatic box	Artificially patinated zinc-based alloy?
8	Two copper-based dragons	Not investigated
9	Box, beginning of the 20 <sup>th</sup> c.	Zinc-based alloy with tin coating?
10a	Plate of the Guild of brush makers	Painted iron plate
10b	Bottom decorations of the plate 10a	Brass

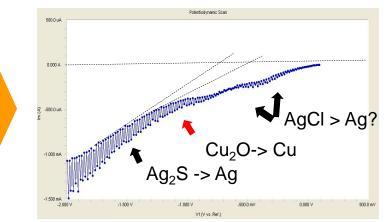






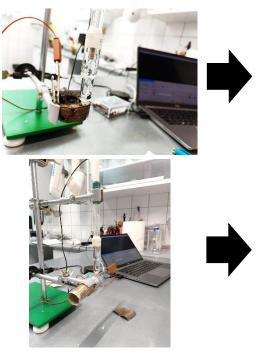








# Discovery Mat



Quaternary alloy with low conc. of Zn and Sn (below 10%) and Pb

Relatively pure aluminium sheet







### Discovery Mat



### Relatively pure aluminium sheet

















### **Outcomes**



- Pleco, DiscoveryMat and MiCorr were used successfully in the three institutions visited;
- All analytical tools can easily be used by conservation staff (curators, conservators);
- Data collection is a fairly straightforward process. Interpretation often requires the support of an expert, at least initially, and expertise is acquired with practice;
- When combined the three tools allow to complete the diagnosis of metal artefacts;
- Other instrumentations can be used in addition (multimeter and Dinolite microscope);
- Collaboration between the different communities (curators, conservators and conservation scientists), fostered by the ENDLESS Metal analytical tools, remains essential to further improve the diagnostic process.

