

The background image is a collage. On the left, a Bruker ELIO XG-100 portable X-ray fluorescence spectrometer is mounted on a stand, positioned over an open book. In the center, a large, dark, abstract shape overlaps the scene. On the right, three women are gathered around a table, looking at a book. One woman is operating the Bruker ELIO spectrometer, which is also positioned over the book. The setting appears to be a library or a museum with bookshelves in the background.

ELIO, Portability and Flexibility in Art Studies – Hear our Experts' Voice

Dr. Henning Schroeder
Michele Gironda

Bruker Nano Analytics

Art & Conservation Webinar Series – Part V

Questions and Answers



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A screenshot of a webinar interface. At the top, there is a "Participants" section with a search bar and a list of participants. The first participant is "BNA moder... Host" with a blue background. Below that is "Roald Tagle". Underneath is an "Attendee" section with "Henning Schröder Me". Below the participants list is a "Q&A" section with a search bar and a "Send" button. The Q&A section shows "All (0)". At the bottom, there is an "Ask:" dropdown menu set to "Host & Presenter" and a text input field with the placeholder text "Select a panelist in the Ask menu first and then type your question".

Art & Conservation Webinar Series – Part V

Speakers



Dr. Henning Schröder

Product Manager
Micro-XRF

Bruker Nano GmbH



Michele Gironda

Global Market
Segment Manager
Art & Conservation

Bruker Nano GmbH

Art & Conservation Webinar Series – Part V

Guest Speakers



Dr. Olivier Bonnerot

BAM - Bundesanstalt für
Materialforschung und -prüfung,
Germany



Dr. Elena Basso

The Metropolitan
Museum of Art, USA



Dr. Federica Pozzi

The Metropolitan
Museum of Art, USA



Prof. Marco Malagodi
University of Pavia, Italy

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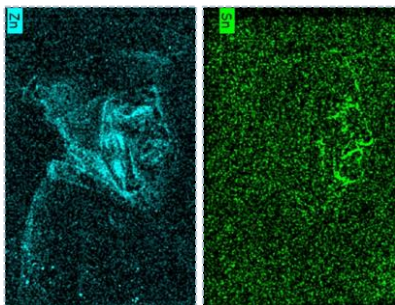
Overview



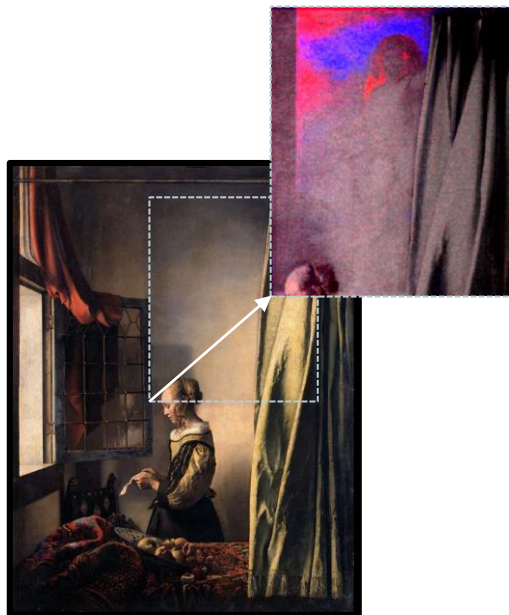
- Introduction
- Guest Speaker Segments
 - 1. “XRF Ink Analysis of Selected Herculaneum Papyri”**
Dr. Olivier Bonnerot
 - 2. “When portability is crucial: the Network Initiative for Conservation Science (NICS)”**
Dr. Elena Basso and Dr. Federica Pozzi
 - 3. “Manufacturing technique of ancient Cremonese Violins”**
Prof. Marco Malagodi
- Summary
- Questions and Answers

Micro-XRF in Art

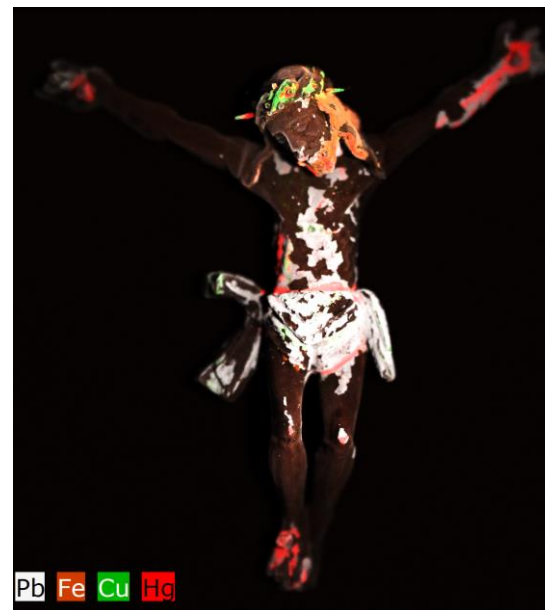
Introduction



Trace element sensitive



Information from depth in the sample



No sample preparation

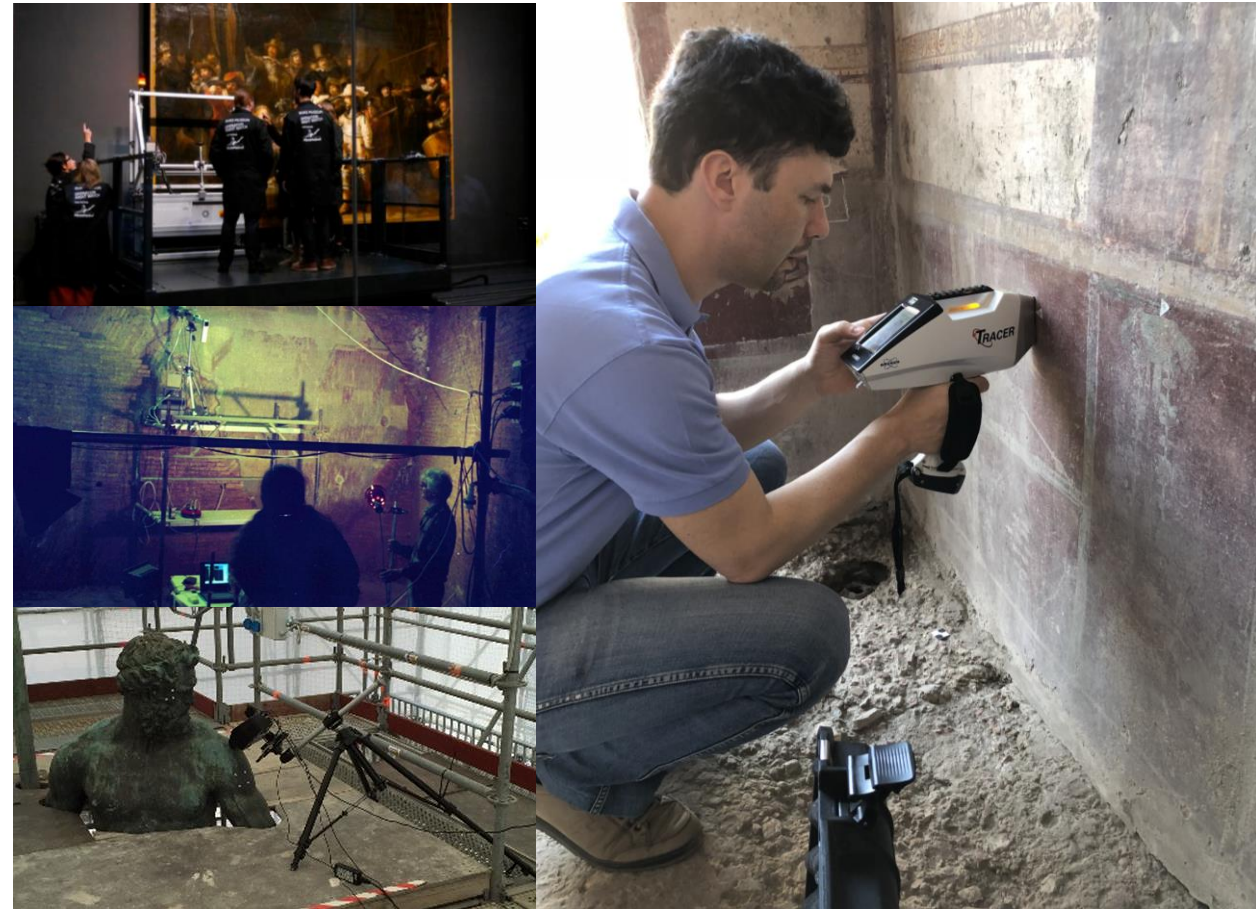
- XRF is an element specific technique each element absorbs and emits fluorescence at its individual energy
- The element concentration can be determined from this data
- An XRF scanner records the fluorescence on multiple points to determine the distribution of the elements
- X-rays can penetrate deeper into matter than visible light allowing the identification of hidden paintings or faded colors

Supporting Art and Conservation

XRF and Art – a Hand in Hand Partnership



- XRF has proven to be a **core analytical technique** in Cultural Heritage studies
- XRF provides key information on objects: **reliable, fast, and non-invasive**
- **But** the needs are not always the same. They differ in crucial ways with respect to the **what**, the **where**, and the **how**.
- Bruker offers several instruments for one analytical principle



Micro-XRF in Art

Our Product Portfolio for Art and Conservation



- Bruker offers the perfect instrument for your specific needs

mapping
↑
spot
↓



TRACER
Family



ELIO



CRONO



M4 TORNADO



M6 JETSTREAM

portable



laboratory based

Micro-XRF in Art

ELIO and it's main Features



- **Ultra-portable** solution
2.1 kg total weight of the measurement head
- **Elemental composition** via spot analysis
1 mm collimator size (Ø)
- **Elemental distribution** via spatially resolved micro-XRF
10 cm x 10 cm travel range
- New high-performance data processing software
ESPRIT Reveal launched in 2020



"XRF Ink Analysis of Selected Herculaneum Papyri"



Dr. Olivier Bonnerot
BAM - Bundesanstalt für
Materialforschung und -prüfung



“When portability is crucial:
the Network Initiative for Conservation Science (NICS)”



Dr. Elena Basso
The Metropolitan
Museum of Art



Dr. Federica Pozzi
The Metropolitan
Museum of Art



“Manufacturing technique of ancient Cremonese Violins”



Prof. Marco Malagodi
University of Pavia



- Bruker has very seriously decided to serve the Art & Conservation market designing and developing instruments for it. The wide portfolio perfectly allows to size a measurement campaign on very specific customer needs.
- ELIO is especially designed for all those applications where flexibility, mobility but at the same time precision and the capability to extend the field of view to areas is fundamental in researchers' activities.
- Our experts offered the opportunity to listen to their extraordinary activities:
 - a world class mobile laboratory initiative in the metropole New York
 - measurement campaigns on iconic musical instruments
 - international research activity on fragile objects as the study on the Herculaneum papyri

In all these situations ELIO has shown its perfect fitting, within the most advanced laboratory implementations, thanks to its characteristic features.

Art & Conservation Webinar Series – Part V

Questions and Answers



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Participants

Search

Panelist: 2

BNA moder...
Host

Roald Tagle

Attendee:

Henning Schröder
Me

Q&A

All (0)

Ask: Host & Presenter

Select a panelist in the Ask menu first and then type your question

Send

Art & Conservation Webinar Series

2021 Outlook

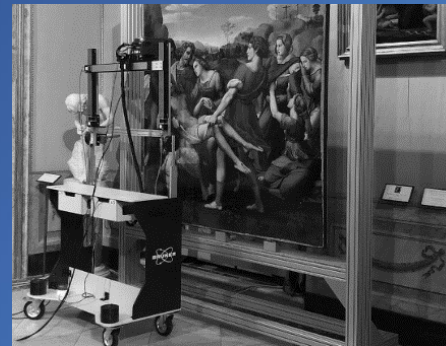
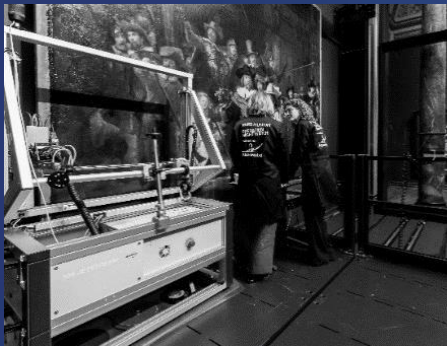


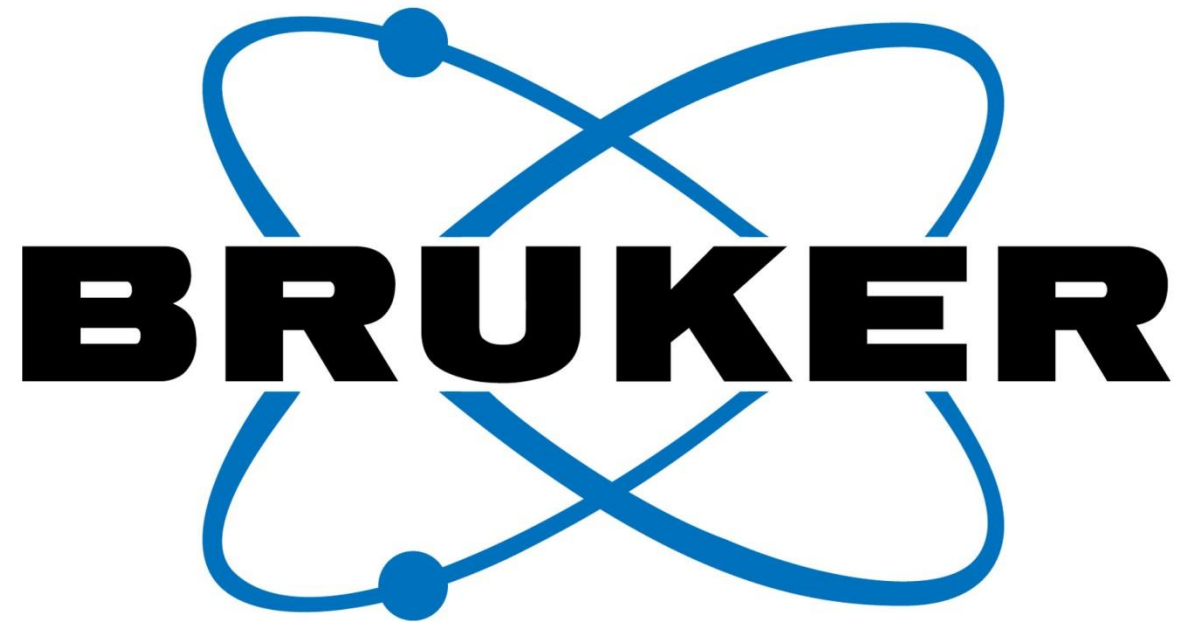
Part V – March 25th 2021 ELIO, Portability and Flexibility in Art Studies - Hear our Experts' Voice

Part VI – 2021 Scanning Electron Microscopy in Cultural Heritage

Part VII – 2021 Advanced Features of ESPRIT Reveal

Part VIII – 2021 MA-XRF in Art Studies - Hear our Experts' Voice





For more information, please contact us
Michele.Gironda@bruker.com

