

Supplementary Materials

The gardener of the Grand Duke: history and analysis of Ms. 462 *Hortus Pisanus, Icones variarum plantarum.*

Luca Nodari¹, Claudia Giostrella², Giulia Lorenzetti², Vincenzo Palleschi², Stefano Legnaioli^{2,*}, Patrizia Tomasin¹

¹ Institute of Condensed Matter Chemistry and Technologies for Energy, National Research Council, (ICMATE-CNR), Corso Stati Uniti 4, 35127, Padua, Italy; luca.nodari@cnr.it, patrizia.tomasin@cnr.it

² Ministry of Culture BUPL, Italy; claudia.giostrella@cultura.gov.it

³ Institute for the Chemistry of Organo Metallic Compounds, National Research Council, (ICCOM-CNR), Via Moruzzi 1, 56124, Pisa, Italy; giulia.lorenzetti@cnr.it, vincenzo.palleschi@cnr.it

* Correspondence: stefano.legnaioli@cnr.it; Tel.: +39 050 315 2221

Academic Editor: Firstname

Lastname

Received: date

Revised: date

Accepted: date

Published: date

Citation: To be added by editorial staff during production.

Copyright: © 2025 by the authors.

Submitted for possible open access publication under the terms and conditions of the Creative Commons

Attribution (CC BY) license

(<https://creativecommons.org/licenses/by/4.0/>).



Figure S1: Photograph of the front cover of the manuscript.

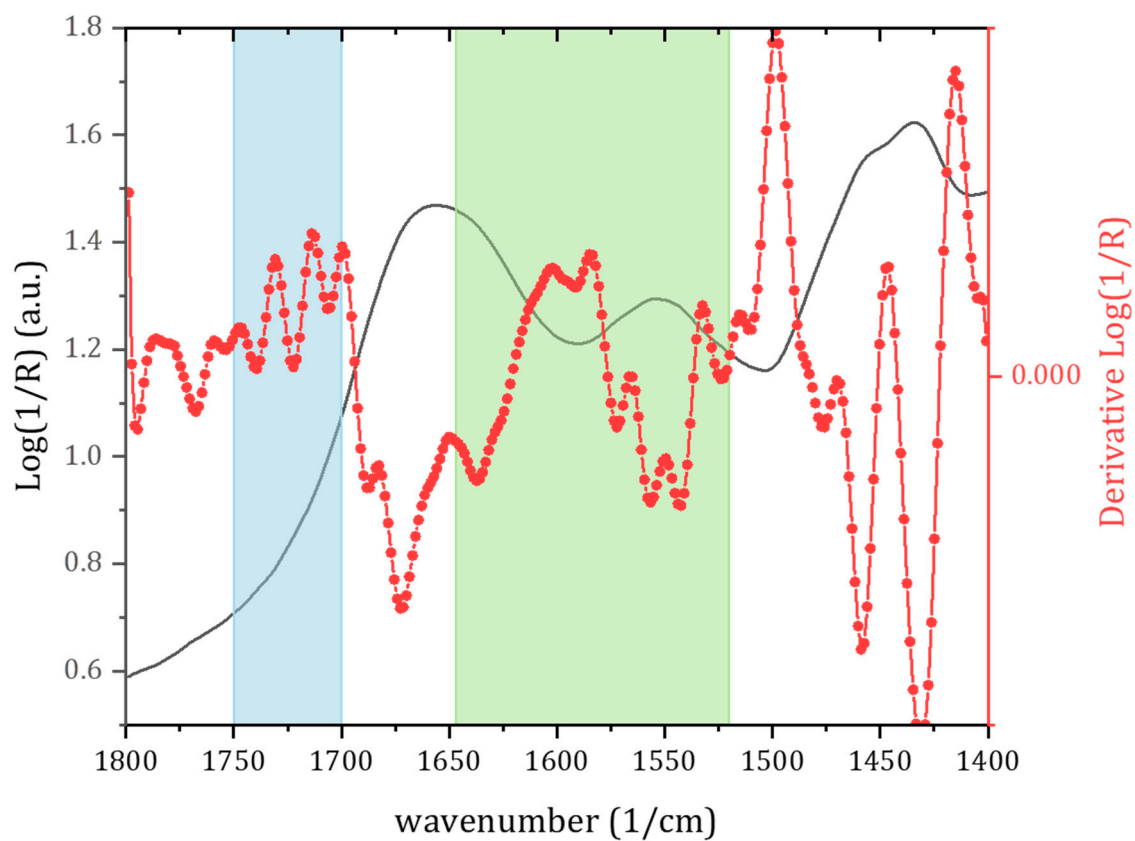


Figure S2: 2nd derivative was applied in the 1800-1400 cm^{-1} range on the ER-FTIR spectrum of paper. Signals of oxidation products were identified in the 1750-1700 cm^{-1} range. Moreover, the broad absorption at 1550 cm^{-1} , can be tentatively ascribed to the superimposition of $\nu(\text{C}=\text{O})$ lignin signals



Figure S3. Starting from the top and proceeding clockwise, the photos of the botanical species *Malva arborea* L., followed by RGB processing, IR acquisition, and ChromaDI processing of folio 12v

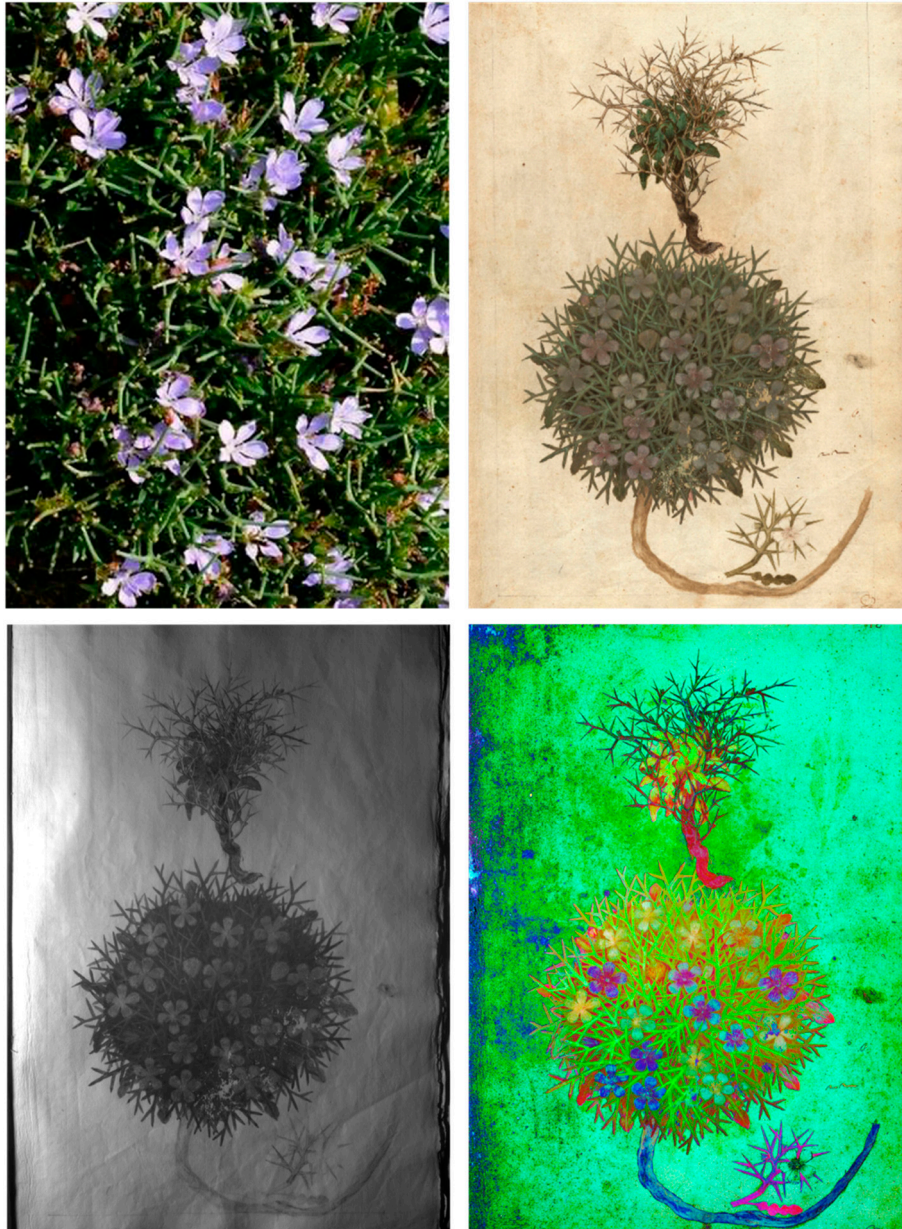


Figure S4. Starting from the top and proceeding clockwise, the photos of the botanical species *Cichorium spinosum* L. (*asteraceae*), followed by RGB processing, IR acquisition, and ChromaDI processing of folio18r



Figure S5. Starting from the top and proceeding clockwise, the photos of the botanical species *Ranunculus asiaticus* L. (*Ranunculaceae*), followed by RGB processing, IR acquisition, and ChromaDI processing of folio 21r

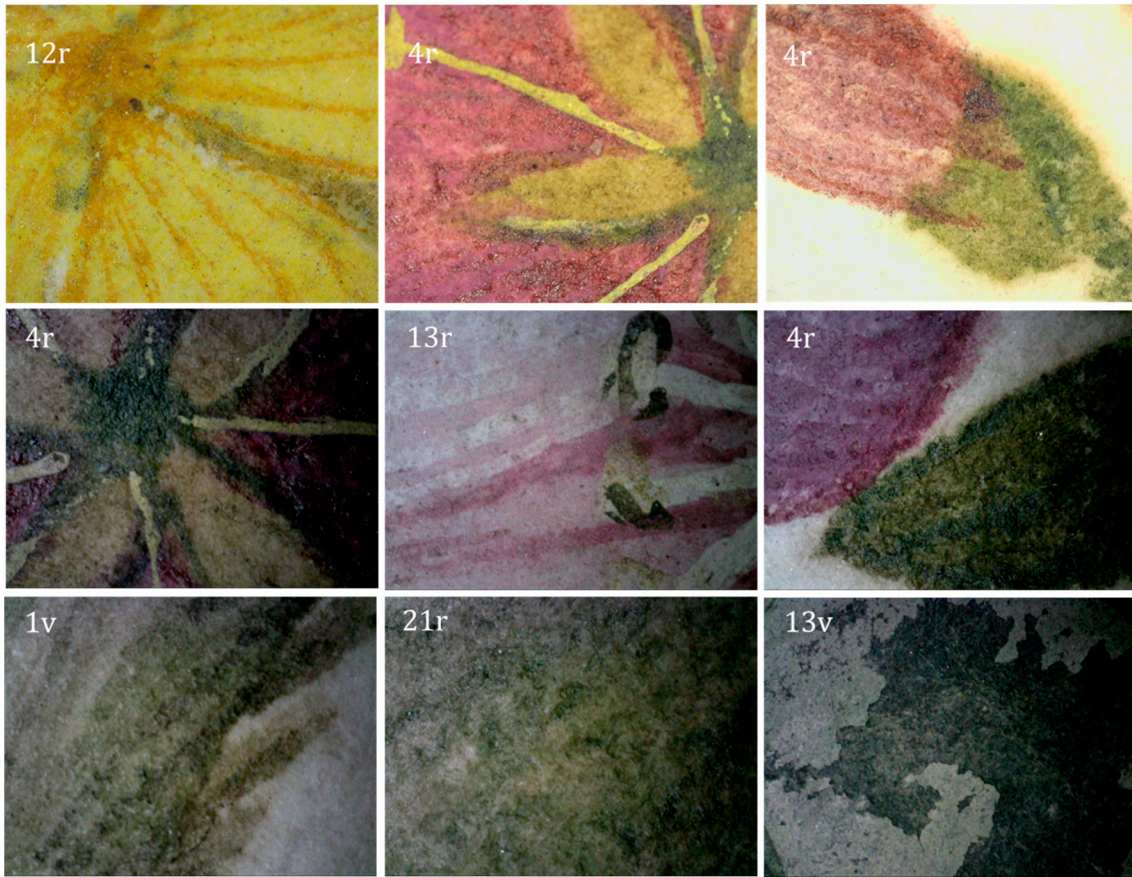
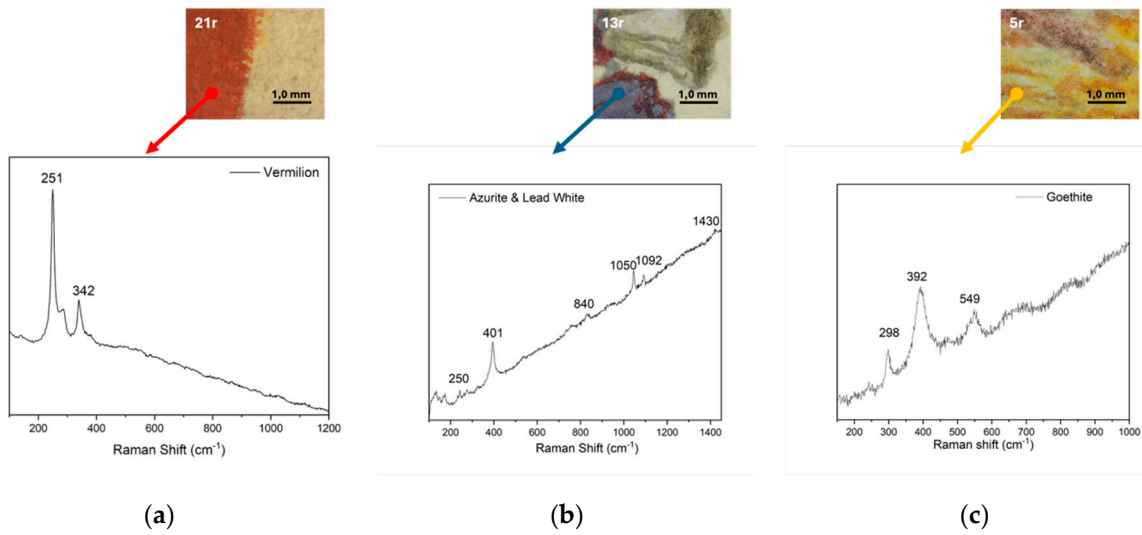


Figure S6: digital optical images (70X) of yellow, red and purple flowers, green leaves. Each image is labeled with the page number, specifying recto (r) or verso (v)



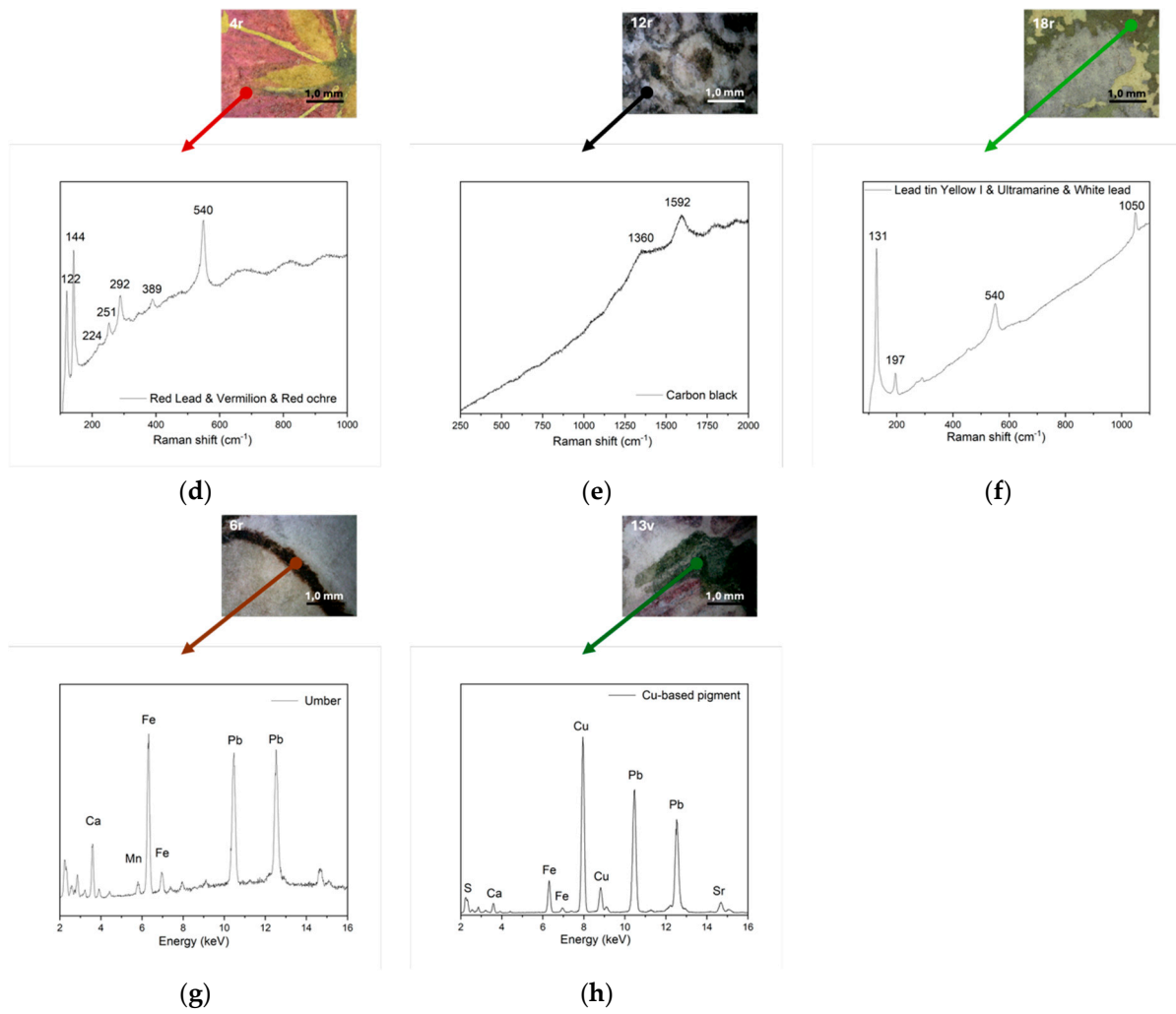


Figure S7: Raman (a-f) and XRF (g,h) spectra acquired on different colored spots.