

AN EXTENSIVE STUDY OF ARCHAEOLOGICAL GLASS FROM LAZIO: THE INGOT-EL PROJECT

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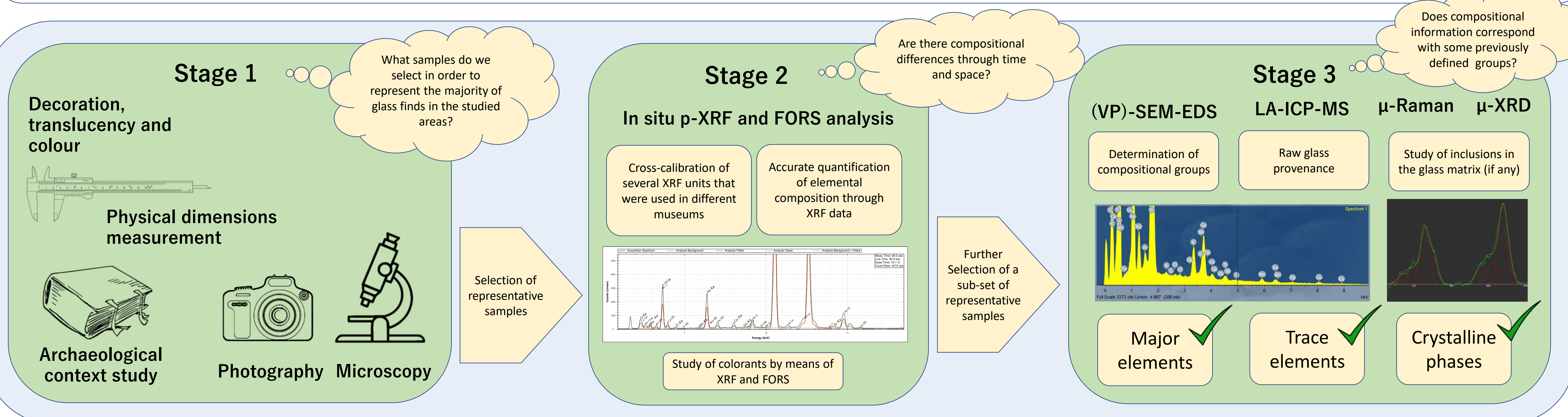
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INGOT-EL - INvestigation of Glass Origin and Technology in Etruscan Lands - is a project that aims at bringing new analytical data into the discussion on glass production and circulation in the Iron Age Italy. Currently, Iron Age objects attract a lot of attention and papers dealing with archaeometric investigations are available [1,3]. Glass underwent its own way of technological evolution in many production centers and chemical analyses can give clues to investigate its origin, although conclusions are not always straightforward.

The ongoing project relies on a large number of glass beads and a wide selection of analytical techniques that are routinely used for archaeological glass characterization [2]. Archaeological objects are protected in the museum collections and cannot be evidently damaged for analytical purposes, therefore, in order to obtain adequate information on raw materials, colorants and opacifiers by overcoming the limitations due to the inevitable glass alteration while meeting the requirements of museums, a compromise approach has been applied. The integrity of the valuable objects was mostly preserved while still obtaining reliable data on a wide set of elements and compounds



When?

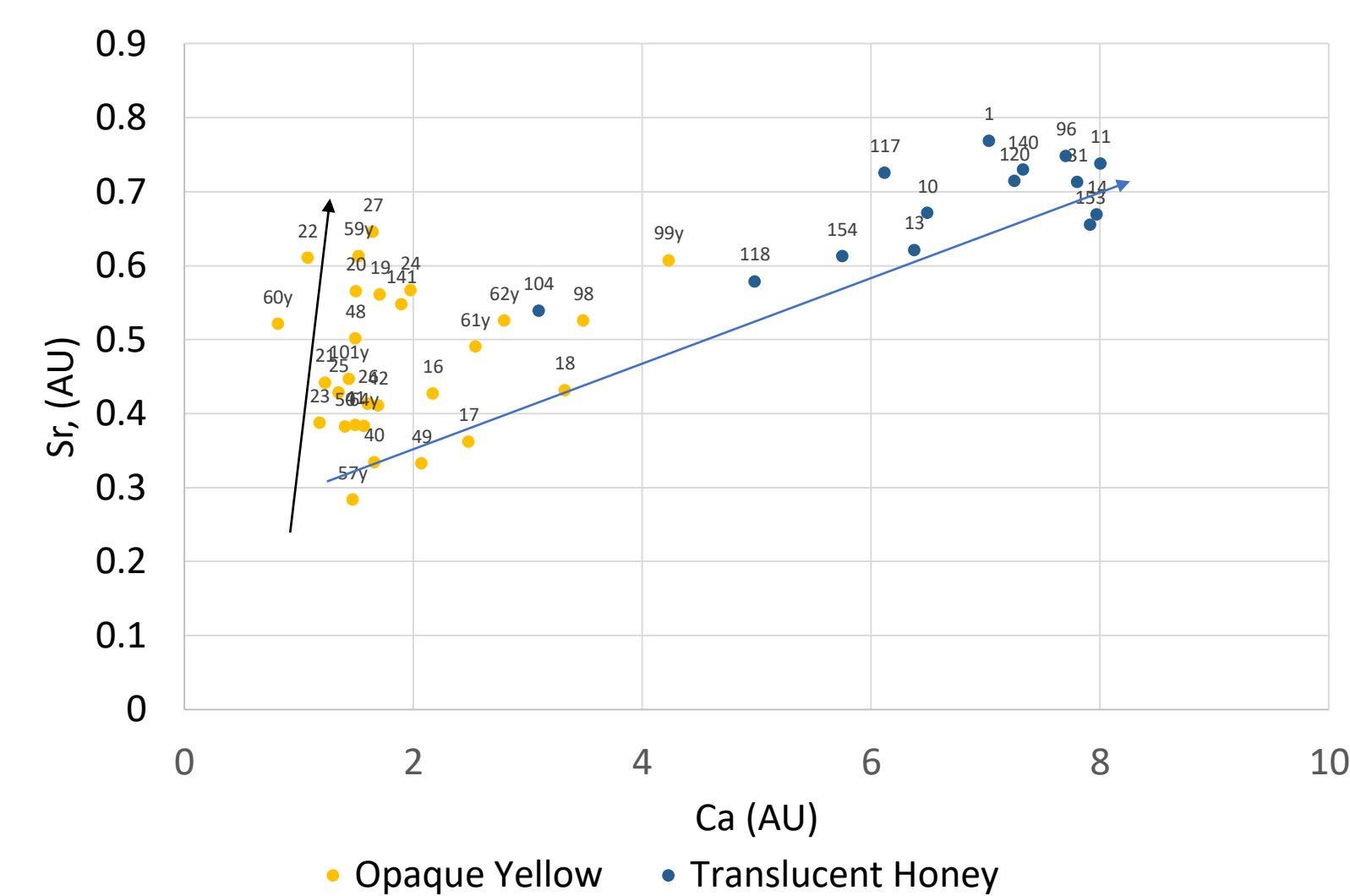
1000 950 900 850 800 750 700 650 600 550 500 450
 The project covers contexts from c. 1000 to 450 BCE

What?



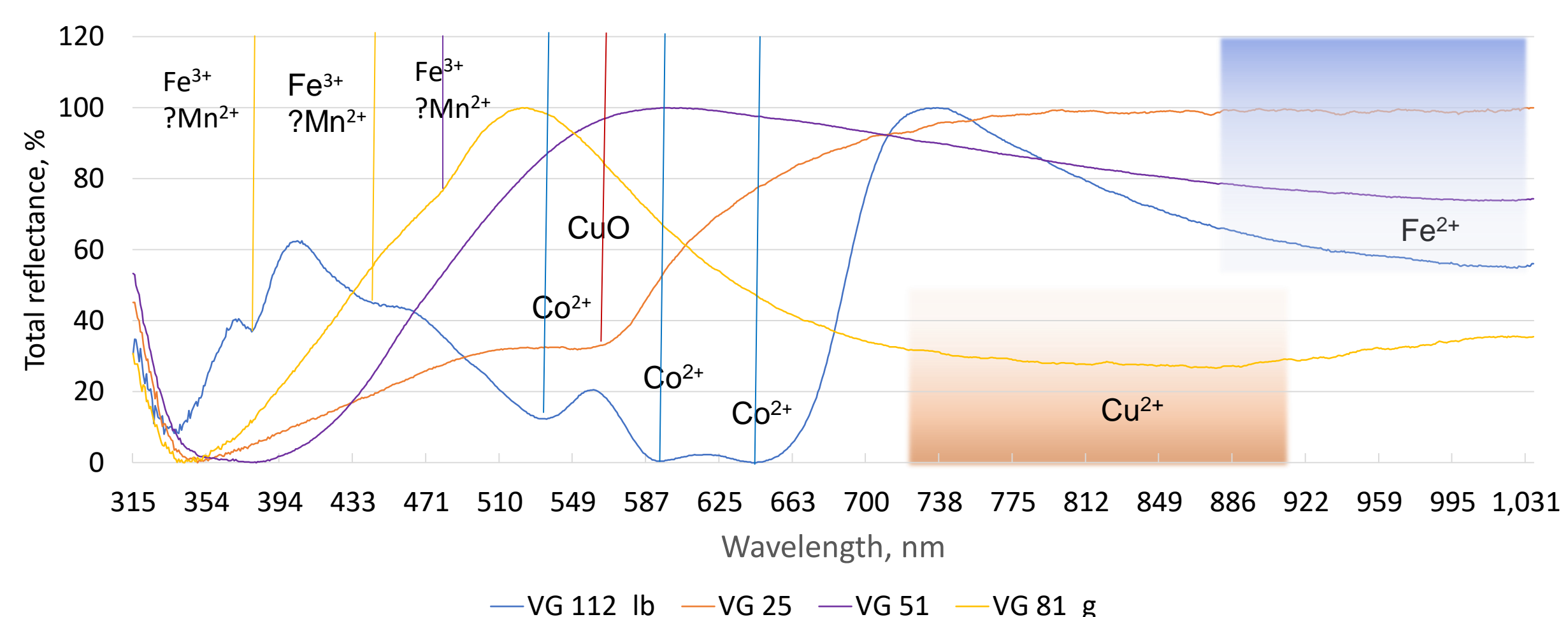
Exemplificative examples of the analysed objects: PG84 (top left), VG37 (top right), PG61 (bottom left), VG1 (bottom right); images presented by concession of Museo Nazionale Etrusco di Villa Giulia and Museo delle Civiltà

Ca/Sr binary plot of two groups of beads from Museo Pigorini (p-XRF data). Different sources of stabilizer?



How?

Representative FORS spectra of some beads from Villa Giulia museum: bands reveal coloring ions.



Where?

Present state

Sound conclusions will be made after all collected data are considered together. Preliminary results on composition point out to the presence of some trends. The quality control of the data is aimed at highlighting the limits of the non-invasive approach and at preventing misinterpretation of the data. Reconciliation of chemical and archaeological information will help in sketching out the diachronic and geographical changes in glass production and exchange in the region of modern day Lazio and also will contribute new knowledge to the understanding of the wider Mediterranean context.

References

- [1] Conte, S., Matarese, I., Vezzalini, G. et al. How much is known about glassy materials in Bronze and Iron Age Italy? New data and general overview. *Archaeol Anthropol Sci* 11, 1813–1841 (2019). <https://doi.org/10.1007/s12520-018-0634-6>
- [2] Janssens, K. H. (Ed.). (2013). *Modern methods for analysing archaeological and historical glass* (Vol. 1). John Wiley & Sons.
- [3] Schmidt, K. (2019). *Glass and glass production in the Near East during the Iron Age: evidence from objects, texts and chemical analysis*. Archaeopress Publishing Ltd.

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