

Curator Interview

Ancient Color

The Kelsey Museum sits down with co-curators Cathy Person and Carrie Roberts to discuss the upcoming special exhibition.

Kelsey Museum: *What are the goals of the exhibition?*

Cathy and Carrie: We have one major idea we want all visitors to take away from this exhibition: that the Roman world was a colorful place. It's something so simple, but so easy to ignore. A lot of Roman sculpture and architectural fragments that fill museums are now mostly white or earth tone in color. Any paint that may have covered them is no longer easy to see. This fact gives many people the wrong impression of ancient Rome.

But through the investigative work of conservators and conservation scientists, we know that many Roman artifacts were originally covered in a whole variety of colors. So we would also like visitors to learn more about how modern science can help us better understand what the Roman world looked like.

We want visitors to see how much effort the Romans put into acquiring and making color. Pigments and



Co-curators Carrie Roberts (*left*) and Cathy Person. Photo by Leslie Schramer.

dyes were gathered, processed, and traded around the Mediterranean. Many of the colors we take for granted today would have been very costly and difficult for a Roman to obtain and use. But they did it anyway, which is amazing.

KM: *What kinds of things did the Romans add color to?*

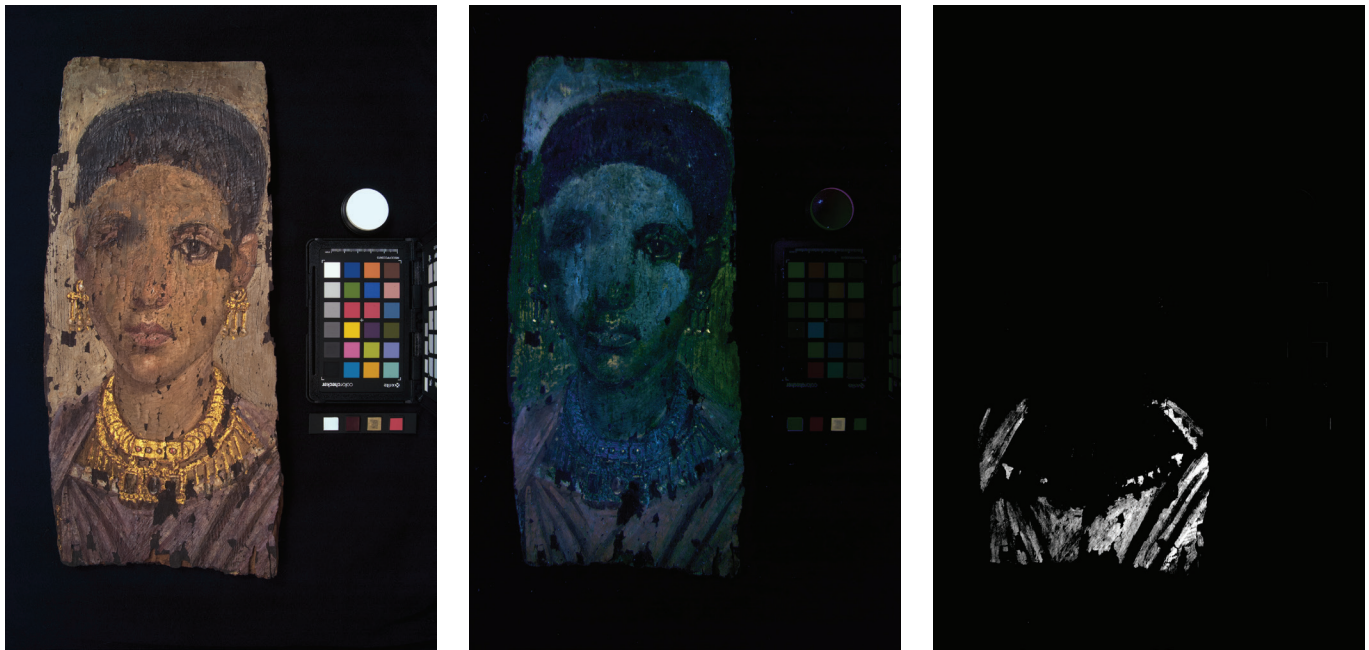
C&C: All kinds of things. The Romans decorated the walls and ceilings of their houses and public buildings. They



Carrie removes a miniscule paint sample from the Kelsey's Fayum portrait (KM 26801) for PLM and FTIR analysis. Photo by Amaris Sturm.



Carrie performing visible-induced infrared luminescence imaging on the Fayum portrait using a modified DSLR camera. Photo by Amaris Sturm.



The Fayum portrait under visible light (*left*), showing what can be seen with the naked eye. Ultraviolet light (*center*) reveals the orange-pink glow of rose madder in the woman's robe, while visible-induced infrared spectroscopy (VIL) (*right*) shows the luminescent glow of Egyptian blue in the same areas. This indicates that the two pigments – rose madder and Egyptian blue – were mixed together to create the lighter shade of purple used for highlights in the robe.

even decorated their garden walls. They painted the columns of their temples. They dyed their clothing all sorts of different colors. They painted sculptures, big and small. They even used pigments to draw graffiti on the sides of buildings. I think it would have been difficult to avoid seeing a painted surface in most Roman cities and towns.

KM: How do we know what materials the Romans used to create color?

C&C: There are two important sources of evidence that researchers are using to answer this question. The first is written evidence. A number of ancient authors, including Theophrastus, Vitruvius, and Pliny the Elder, made important observations about the sources of raw materials used in the production of pigments and dyes. Pliny, for example, goes into great detail about how the highly valued Tyrian purple dye was extracted from molluscs, ways that it was modified to alter the resulting color, and the high monetary value that the material had.

Another important source of information can be found on ancient artifacts and structures. Dyed textiles, wall painting fragments, terracotta figurines with traces of

pigment, even marble sculpture and architecture with only traces of color remaining are being studied using imaging and analytical tools originally developed in the materials sciences. Many of these tools take advantage of the measurable ways in which pigments and dyes interact with different forms of radiation – from x-ray to infrared radiation – and allow conservators and scientists to locate and identify unknown materials. In this way we can learn not only where traces of color are on artifacts where they are difficult to see, but also identify the type of pigment – be it rose madder, Egyptian blue, or a mixture of the two to create purple – that was used on an artifact.

The use of different, complementary research methods is one of the key takeaways we would like visitors to experience when exploring *Ancient Color*, and we hope it will demonstrate how cross-disciplinary study and collaboration can lead to new discoveries. ▲

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Mark your calendar! *Ancient Color* opens at the Kelsey Museum on February 8, 2019.