# **CROCKER** art museum



#### Why conserve?

The goal of conservation is twofold: to ensure the physical stability of the object and to return it as much as possible to the original visual state. The science of conservation involves many kinds of research, including research into the artist's life and working methods, comparison with other works by the artist or of the period, deep knowledge of historical paints and other materials, and research into the physical state and needs of the object. Certain tools, such as x-ray examination and infrared reflectography, allow the paintings conservator to see more clearly the underlying layers of paint and canvas that are not visible on the surface. In the process of conserving Wilhelm Gentz's *The Harem Taking a Walk*, a project made possible by the National Endowment for the Arts, these methods were especially important in revealing more about the artist and how the canvas was created.





#### **Before conservation**

Wilhelm Gentz's *The Harem Taking a Walk* is uniquely important to the Crocker Art Museum's Central European paintings collection. Whereas many artists created a romanticized version of Ottoman life from a distance, Gentz moved to Egypt for several years to explore and depict the region's culture first-hand. Here, he depicts the inhabitants of a harem, the space reserved to wives and concubines in Ottoman culture, taking their daily exercise in a walled garden in Cairo. The painting was purchased by the Crockers during their trip to Europe in 1869–71 and has remained at the museum since.

When this conservation project began, the painting reflected little intervention by restorers except for the fact that the canvas had been relined (backed with another canvas for support). The action of time and climate—the Crocker was not air-conditioned until 1978—affected both the surface and the structure of the painting and its frame. The painting had dusty, yellowed varnish and many losses in the frame's gilding and ornament. Remarkably, though the surface had cracked significantly as is usual for canvases of this age, very few losses of paint had occurred.

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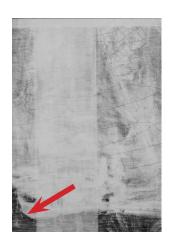


### **Raking light**

Raking light, or light coming from a source shining parallel to the picture plane, is often used to closely examine paintings. It reveals the differing textures of painted areas, with the peaks shown in bright light with cast shadows in lower areas. In the photograph at left, raking light reveals a sharp division between the thickly painted edge of the canvas and the thinly glazed background scene with trees and fountain. At right, the photograph reveals a similar sharp line bordering the head of the left-hand figure. From this evidence it seems that the artist, using a palette knife, removed his first version of the garden background before replacing it with the current version. When the painting is in its frame, the thickly painted edge shown in the first photograph is concealed. Traces of paint found along the inner edge of the frame make it clear that the new background was made late in the artist's process, when the frame was already on the painting.

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#### X-radiography

Just as when it is used on the human body, x-radiography reveals density, useful for determining thickness and composition of painting layers. The underlying structure of the painting can reveal much about technique, aging, and previous restoration or conservation. In these images, the original priming of the canvas, which contains very dense lead white pigment, emphasizes the weave of the cloth. The images make clear the great difference in thickness between the paint in the figures—thick enough to cause stress cracks—and the thinly painted background. In addition, there is a sharp delineation between the two areas. This indicates a change in the artist's process, since he scraped away the first background with a palette knife before painting the one visible now. The red arrows in the detail images show the sharp edge and loss of loose flakes of paint as he did this.

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#### Infrared reflectography

Examination under infrared light, a type of light too low in wavelength for the human eye to see, can be used to create an image of layers below the surface of the painting. Often used to reconstruct underdrawing, which tends to reflect infrared light, it can also give information about changes to the paint layer due to damage or repainting. The infrared camera images seen here reveal the drawing below the painted surface of the guard's head—the crisp outlines are preserved in the finished painting with few alterations. The background, however, is different: no underdrawing is visible under the foliage, indicating the artist's sure but sketchy method in creating the garden.

#### **Conclusions**

Discoveries involving the artist's working method can inform the conservation process itself: differing thicknesses of paint, for example, require different techniques to achieve structural stability. Such information, when shared among scientists, can affect the conservation of other works of art by the same artist or even others of the same period, as it can point towards potential issues in other paintings. The science of conservation has also revolutionized the field of art history and curatorial practice, especially the examination methods that allow us to look below the surface of paintings to reveal underdrawings corresponding to known works, information about the artist's working process, and other information that confirms or denies authenticity.