



museum**kids**



# What is Art Conservation?

**The Metropolitan Museum of Art**

## *What is Art Conservation?*

There are so many works of art here—and so many different kinds! How does the Museum take care of them all? w That’s a big question! So big that we can only begin to answer it here. In this issue of **museumKids** we look at just some of the departments that take care of the artwork, but there are many more. w All the works of art in the Museum are cared for a little differently, but there are two things that all of them need. They all need to be kept in a certain air temperature and at a certain level of humidity. Humidity refers to the amount of moisture, or water, in the air. Controlling the humidity helps prevent works of art from drying out (and possibly cracking) or becoming damp. w Also, works of art in the Museum’s collection are cleaned when necessary, but different cleaners are used for different materials—you wouldn’t use the same soap on a wooden sarcophagus as you would on a clay urn any more than you would clean a toy fire truck and your cat with the same soap. w Cleaning, preserving, and occasionally repairing works of art is known as **art conservation**, and the people who do this specialized work are called conservators. We talked to several **conservators** in the Museum to find out how different works of art are cared for. **Let’s look at some of the ways this is done.**

# Paintings

The paintings in the Museum are cared for by five conservators. One specializes in the structural treatment of paintings on wood panels, another in the treatment of modern paintings. Older paintings usually have a coating of varnish to make the colors look richer and give the painting some protection. Most modern paintings are not protected by varnish, which can create problems for the conservators who are trying to take care of them.

When a painting needs treatment, it is taken to a specially designed studio in the Museum. The studio is on the top floor of the building and receives northern light—the same cool, steady light that painters like to use. The paintings are treated on the same kinds of easels that painters use, too.

The conservation treatment of a painting might involve removing old discolored varnish, mending a tear in the canvas, or securing flaking paint. Painting conservators use a lot of different brushes in their work, from big wide ones made with stiff hog bristles for varnishing to soft goat hair brushes for dusting and tiny sable (fur) brushes for retouching, which means using new paint to disguise tiny amounts of damage.



Govert Flinck (Dutch, 1615–1660), *Bearded Man with a Velvet Cap*, 164[5?]; oil on wood, 23<sup>3</sup>/<sub>4</sub> x 20<sup>5</sup>/<sub>8</sub> in. (60.3 x 52.4 cm); Bequest of Collis P. Huntington, 1900 (25.110.27)



Govert Flinck (Dutch, 1615–1660), *Bearded Man with a Velvet Cap*, 164[5?], X-radiograph (detail)

Conservators can use x-ray equipment to examine paintings and see what's going on under the surface. Have you ever had an x-ray? Doctors use x-rays to see inside your body, and conservators use x-rays to get a better understanding of how a painting was made and what condition it is in. Sometimes they can tell that a painter has made a huge change in a painting. Look at the example here. Without the help of an x-ray, conservators would never have discovered that the artist Govert Flinck had first painted a portrait of a young man with wavy hair (above, right), and then reused the wood panel to paint the portrait of an old man (above, left).

# Textiles



A textile conservator works on a Chinese hanging.  
(Photograph by Florica Zaharia)

Tapestries, carpets, quilts—all these things are called *textiles*, and textile conservators take care of these works of art.

Wander into the medieval art galleries on the first floor (consult a Museum floor plan for directions on how to get there), and you will see many large tapestries—pictures that were woven rather than painted—hanging on the walls. While the tapestries are on display, conservators clean them regularly with a special vacuum cleaner. They also make sure that the gallery lights are kept dim to prevent the tapestries' colors from fading and that the air in the gallery is clean and at the correct temperature and humidity level. They ask the guards to make sure that visitors do not touch the textiles—oil and dirt from hands can damage them over time.

Sometimes several-hundred-year-old tapestries need restoration, or repair. The conservators repair missing parts of a picture with yarns they dye themselves in many colors. The areas restored with modern yarns should not be particularly noticeable to anyone looking at a tapestry, but if you look very carefully you might see the difference between the repaired areas and the original ones.

Textile conservators use microscopes and other equipment to identify fibers, yarns, weaves, and dyes and to determine what restoration materials should be used to repair a particular textile. They are also skilled in spinning, weaving, and sewing.

## *Fascinating Facts*

- *The Museum's textile collection includes more than 38,000 pieces from all over the world, covering more than 5,000 years.*
- *The textile collection has its own storage room where textiles are kept at just the right temperature and humidity.*
- *The smallest piece in the collection is a fragment not much bigger than an ordinary postage stamp—less than one square inch. The largest is a tapestry that measures 17 by 28 feet.*



Conservators at work in The Sherman Fairchild Center for Objects Conservation.

# Objects

The conservators in the department of Objects Conservation are responsible for the care and study of three-dimensional works of art, or objects that can be seen from all sides, such as pottery, furniture, glassware, and sculpture. The Museum has more than one million objects, which can be as small as a piece of jewelry—or as large as a room. The objects are made of a variety of materials, including stone, wood, clay, and plastic. Analyzing these materials helps conservators understand how the objects were made and allows them to take better care of them. A special research laboratory in the department is used for the scientific study of the objects.

The department of Objects Conservation has more than forty conservators, scientists, and installers, who study, preserve, and install works of art for display in the galleries. In the year 2000, the department received 1,344 requests for objects to be examined or treated.

The department is responsible for cleaning many works of art as well. Some are cleaned with chemicals and others with water. Depending on what the objects are made of, the conservators use cotton swabs, brushes, scalpels, or special vacuum cleaners to clean them. Cleaning an object can take anywhere from twenty minutes to ten years. That

honor went to the study from the palace of Duke Federico da Montefeltro in Gubbio, Italy, a fifteenth-century room on the first floor of the Museum decorated almost entirely with inlaid wood. The biggest objects cleaned are usually architectural—like the Temple of Dendur in the Egyptian collection.

Some objects that come into the Museum need to be fumigated. That means destroying bugs that might be eating the object—just like moths might eat your sweater. Here's how fumigation works: An object is placed in a sealed plastic bag, all the air is sucked out, and the bugs suffocate.

When the objects are on display, it's very important for them to be kept in a controlled environment. That means that they're kept in a place where there are no drastic changes in the air temperature or humidity. The temperature is controlled with thermostats. Instruments called hygrothermographs are installed in many galleries and storerooms to monitor the environment to see if it is changing in any way. To control the humidity level in a particular display case conservators use a substance called silica gel. You can't actually see it, but it helps take moisture out of the air and maintain a certain humidity level inside in the case.

What a display case is made of is also important since works of art may contain materials that will react badly if they come in contact with certain other materials. For example, some fabrics, such as silk, may contain a substance called sulfur. Sulfur causes silver to tarnish, so fabrics containing sulfur wouldn't be used to line a case containing silver objects. Conservators test display materials to see if they are suitable to be used in the cases.

Preserving and repairing the objects are also very important. For example, if an

object, such as a clay pot, has been buried in the ground—especially in the desert or near the ocean—salt from the ground might seep into the object. This can cause the glaze on the surface of the pot to come off. Conservators might soak the pot to remove the salts, or else they might apply a poultice, which acts like a wet sponge to absorb the salts drawn to the surface. A special glue—called an adhesive—might be used to reapply the glaze fragments.

## *Musical Instruments*

Take a trip to the Museum's collection of musical instruments on the second floor. The keyboard instruments, like the pianos and the harpsichords, are the most difficult to take care of because they have so many parts made of different kinds of materials. Each of the harpsichords, for instance, has dozens of crow feathers inside. The root of the feather is called the quill, and this is the part that is used to pluck the strings inside the instrument. When a quill wears out, it needs to be replaced. Perhaps most important, the instruments also need to be tuned regularly. This means that the strings have to be carefully tightened or loosened until they sound good together.

Now let's look at the violins. The air temperature and humidity need to

be carefully adjusted to keep the instruments in good condition. If there's not enough moisture in the air (low humidity), the wood can dry out and crack. Because the Museum's violins have been kept in a controlled environment, few repairs have been needed in the past twenty-five years.

On the other side of these galleries, you'll see instruments from many different places around the world, including Africa, India, and China. Find the *kora* from West Africa, an instrument that looks a little like a banjo covered with antelope hide. You might think that it takes some sort of fancy high-tech cleaner to clean a *kora*. While special cleaners are used, one thing that also sometimes works when removing a stain on this kind of instrument is a soft pencil eraser!

Musical instruments conservator Stewart Pollens takes care of instruments ranging from flutes and drums to violins, like this one.



What you've read about in this issue of **museumkids** explains just a small part of what some conservators in the Museum do to take care of all the works of art—so you can enjoy them every time you visit! **Do you have other questions about what goes on at the Museum? Let us know!**

## *Activity*

Now that you know a little about how conservators in the Museum take care of different works of art, it's your turn. Tell us about something you have that's important and special to you and how you take care of it. You can write about it, draw a picture of it, or both. If you'd like, use a separate piece of paper. Don't forget to include your name, age, and address, so we can send you a Museum goodie.

You can send your project to:

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Front: Govert Flinck (Dutch, 1615–1660), *Bearded Man with a Velvet Cap* (detail); Back: The Sherman Fairchild Center for Objects Conservation  
All photographs by the staff of the Photograph Studio of The Metropolitan Museum of Art unless otherwise noted.

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