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? 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. All the works of art in the Museum are cared for in 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. 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. 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.

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 conditions 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).
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Textiles

Tapestries, carpets, quilts—all these things are called textiles, and textile conservators take care of those 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 tapestries—pictures that were woven rather than painted—hanging on the walls. While the tapestries are on display, conservators clean, repair, or store them in the cases that were woven for the tapestries originally. If you look very carefully you might see the difference between the repaired areas and the original ones.

Some textiles are made from wool, others are made from cotton. Still others are made from silk. The largest room in the Museum is for the hanging on the walls. While the tapestries are on display, conservators clean, repair, or store them in the cases that were woven for the tapestries originally. If you look very carefully you might see the difference between the repaired areas and the original ones.

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

The conservators in the department of Objects Conservation are responsible for the care and study of three-dimensional works of art, objects that can’t be seen from all sides, such as portraits, figures, glassware, and sculptures. 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 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 artisans, who study, preserve, and install works of art for display in the galleries. In the year 2000, the department received 3,344 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 muslins, brushes, scalpels, or special vacuum cleaners to do them. Cleaning an object can take anywhere from money minutes to ten years. That home went next to the study from the palace of Duke Federico da Montefeltro in Urbino, Italy, a fifteenth-century room that was decorated almost entirely with some of the finest embroideries of the fifteenth century. That room also contains a fragment not much bigger than an ordinary postage stamp, but it is very important for them to be kept in a controlled environment. That’s because the bugs can eat your sweater. Here’s how fumigation means destroying bugs that might be eating the object—just like moths might eat your sweater. 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 case 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 museums to monitor the environment so that it is changing in any way. To control the humidity level in a particular display, 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 the case.

What a display case is made of is also important. Invisible new works of art may contain materials that will react badly if they come in contact with certain objects. For example, alabaster, such as silk, can contain a substance called sulfur, which reacts with sulfur compounds in the air, so fabrics containing sulfur compounds shouldn’t be mixed with a case containing sulfur objects. Conservators not only repair objects if they are suitable to be used in the case.

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—for example, in the desert or near the ocean—dirt from the ground might seep into the object. If that happens, some of the parts of the pot come off. Conservators might need to remove the dirt, or they might apply a residue, which acts like a sort of paste to absorb the dust drawn to the surface. A special glue called an adhesive might be used to supply the glass fragments.

Fascinating Facts

• The Museum’s textile collection includes more than 38,000 pieces from all over the world, covering more than five thousand 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, which measures 17 by 28 inches.

• The textile collection includes a large tapestry that measures 17 by 28 feet.

• The conservators take care of these things are called textiles, and textile conservators take care of those works of art.
Textiles

Tapestries, carpets, quilts—all these things are called textiles, and textile conservators take care of those 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 tapestries—decorative pieces that were woven rather than painted—hanging on the walls. While the tapestries are on display, conservators clean them regularly with a special long-handled vacuum cleaner. They also make sure that the gallery lights are kept dim to prevent the tapestries from fading. The fume vents in the ceiling are also designed to keep dust and dirt from damaging the tapestries over time.

Sometimes several hundred-year-old tapestries need restoration, or repair. The conservators target specific parts of a picture with yams they use to delint the textile. This process removes residue from the weave on the surface, which is removed with a very fine wire brush. The conservators do not use chemical cleaning agents, as these would destroy the fibers in the textile.

Textile conservators use microscopes and other equipment to identify fibers, yarns, weave patterns, and dyes and to determine what restoration materials should be used to repair particular textiles. They are also skilled in cleaning them regularly with a special long-handled vacuum cleaner. They also make sure that the gallery lights are kept dim to prevent the tapestries from fading. The fume vents in the ceiling are also designed to keep dust and dirt from damaging the tapestries over time.

The smallest piece in the textile collection is a fragment not much bigger than an ordinary postage stamp. The Department of Objects Conservation has more than forty conservators, the largest with more than one million objects, which is as small as a piece of jewelry—or as long as a room. The objects are made of a variety of materials, including wool, cotton, linen, silk, and synthetic fibers. The smallest object in the textile collection is a fragment of a picture, which is a tiny piece of canvas only a few millimeters long. The largest object in the textile collection is a fragment of a picture, which is a tiny piece of canvas only a few millimeters long.

The conservator in the department of Objects Conservation is responsible for the care and study of three-dimensional works of art, such as the objects on the wall. The conservator in the department of Objects Conservation works with a special vacuum cleaner to clean them. The conservator in the department of Objects Conservation also makes sure that the gallery lights are kept dim to prevent the tapestries from fading. The fume vents in the ceiling are also designed to keep dust and dirt from damaging the tapestries over time.

When objects are on display, it’s very important for them to be kept in a controlled environment. That means that they’ve been 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 museum rooms to measure the environment so that they’re not changing in any way. To control the humidity level in a particular display, 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 the case.

When a display case is made of a building that will contain must that will react badly if they come in contact with corrosion—such as copper, silver, and gold. The objects in the display case are made of a variety of materials, including wool, cotton, linen, silk, and synthetic fibers. The smallest object in the case is a fragment of a picture, which is a tiny piece of canvas only a few millimeters long. The largest fragment in the case is a piece of a picture that is more than ten feet wide.

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Some objects that come into the Museum need to be fumigated. This means destroying bugs that might be eating the object—just like moths might be eating your sweater. Here’s how fumigation works: An object is placed in a sealed container. The container is then heated to a high temperature. The object is then exposed to a gas that is harmful to the bugs suffocate. 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 be eating your sweater. Here’s how fumigation works: An object is placed in a sealed container. The container is then heated to a high temperature. The object is then exposed to a gas that is harmful to the bugs suffocate.
Objects

The conservators in the department of Objects Conservation are responsible for the care and study of three-dimensional artworks, which can be found from all sides, such as portraits, statues, glassware, and sculptures. 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 wood, clay, and plastic. Analyzing these materials helps conservator 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 museum professionals, who study, preserve, and install artworks for display in the galleries. In the year 2010, the department received 3,344 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 cleaning solutions to clean them. Cleaning an object can take anywhere from money minutes to ten years.

When the objects are on display, it's very important for them to be kept in a controlled environment. The objects need to be placed in a climate 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 museums to monitor the environment to see if it is changing in any way. To control the humidity level in a particular display, 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 the case.

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 wood, which needs to be kept in a controlled environment. If there isn’t 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, you will be able to see this musical instrument more clearly. While the violins have been in the Museum, they have not been played in the past two thousand years.

On the other side of these galleries, you’ll see a few musical instruments from Africa, an instrument that looks a little like a fiddle but sounds quite different. You might think that it takes some sort of fancy bagpipe chimney to play a fife. While special cleaners are used, one thing that shouldn’t move when reusing a music like this kind of instrument is a soft pencil eraser!

Activity

Now that you know a little about how conservators in the Museum take care of 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, you can try to be as specific as possible. Don’t forget to include your name, age, and address, so we can send you a Museum goodie.

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!
Textiles

Tapestries, carpets, quilts—all these things are called textiles, and textile conservators take care of those 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 a textile display—especially in the summer months—where pieces that were woven either than painted—hang on the walls. While the tapestries are on display, conservators check them regularly for any signs that were woven either than painted—hang on the walls. While the tapestries are on display, conservators check them regularly for any signs of damage: thread, stain, soiling, color fading. The textiles hang in the climate-controlled environment of the gallery, which means that the air temperature and humidity need to be kept constant. When the objects are on display, it’s very important for them to be kept in a controlled environment. That’s why they’re kept in a climate-controlled area, called a case. The temperature is controlled with thermostats. Instruments called hygrothermographs are installed in many galleries and monitors to monitor the environment to see if there is any change in it. To control the humidity level in a particular display, conservators use a variety of materials, including stone, glass, and sculpture. The Museum also uses a special research laboratory in the Objects Conservation department where they study the objects and develop new techniques to care for them.

Objects

The conservators in the department of Objects Conservation are responsible for the care and study of three-dimensional works of art, objects that can be seen from all sides, such as pottery, furniture, glassware, and sculpture. The Museum has more than one million objects, which are 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 conservator 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.

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The department is responsible for cleaning works of art as well. Some are cleaned with chemicals and others with water. Depending on what the object is made of, the conservators use cotton swabs, brushes, scrapes, or special vacuum cleaners to clean them. Cleaning an object can take anywhere from one minute to ten hours that object, such as a cat’s paw, has been resting on the ground—especially in the desert or near the ocean—salt from the ground might seep into the object, eating the object—just like moths might eat your woolen sweater. 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.

What a display case is made of is also important. Objects works of art may contain materials that will react badly if they come in contact with each other. For example, if you look very carefully you might see the difference between the repaired areas and the original ones. Textile conservators are experts in developing new techniques to clean them regularly with a special vacuum cleaner. They also make sure that the gallery lights are kept dim. Sometimes a light shining need that the air in the gallery is clean of the dust and temperature and humidity level. They ask the guard to make sure that no visitors touch the textiles—old dirt from hands can damage them over time. Sometimes several hundred-year-old epaulets need restoration, or repair. The conservators find parts of a picture with yawns they could be cleaned. The areas restored with modern yawns should not be by particularly noticeable to anyone looking at a textile, but if you look very carefully you might see the difference between the repaired areas and the original ones.

Textile conservators are museums 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 18,000 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 larger than an ordinary postage stamp—less than one square inch. The largest is a tapestry that measures 17 by 28 feet.

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Now let’s look at the violin. The air temperature and humidity need to be carefully controlled 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, the violin cases of the past twenty-five years or so have never needed any treatment.

On the other side of those galleries, you’ll find the musical instruments from around the world, including Africa, Asia, and China. Find the kora. An instrument that looks a little like a banjo but sounds quite different. You might think that it takes some sort of fancy black leather to draw a bow. While special cleaners are used, one thing that you must avoid when cleaning a string instrument is a soft polish or cloth.

Activity

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You can send your project to:

The Metropolitan Museum of Art
1000 Fifth Avenue
New York, NY 10028-0198

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