John collects baseball cards. His favorite team is the Houston Astros, and he has complete team sets going back to 1985. Though they are not Astros, John has begun to collect cards autographed by Sammy Sosa and Mark McGwire, too. He feels they will be worth a lot of money in the future.

Kathy, John’s mother, collects old cookie jars. While reading about the Little Red Riding Hood cookie jar she inherited from her grandmother, she discovers that there were whole sets of Little Red Riding Hood pieces, including pitchers, butter dishes, salt and pepper shakers, and canisters. She searches on the Internet to check how much these accessories are worth and if any are available for sale.

In modern Western cultures, almost everyone collects something. As people grow older and have increased incomes, the cost of the objects they collect may also grow. Some collectors are not individuals, but institutions. Museums are collectors of objects they preserve and display for the general public.

Though the reasons for accumulating objects may differ, the end result is the same: collections are considered valuable property, to be cared for, looked after, and added to. In some cases a collection is most valuable when it is complete, or at least more complete than someone else’s. Every piece may not be a favorite, but the collector feels he/she must have every piece, or at least a representative sampling. The best collections, of course, are those that increase in value over time. To the collector keeping sea shells from places visited around the world, the value may be in the memories kept strong over time. To the collector of modern paintings, the value may be in the anticipated recognition of the artist and the increased worth of the art as time passes.

When a collector considers adding a new object to his/her collections, many questions come to mind: What is the condition of this object? Is the price appropriate for what is being offered? Will another object of this kind become available again soon? Is this object what the seller tells me it is? The last question is often the most important, for a growing market in fakes and forgeries means that not everything is what it appears to be.

Every year, millions of dollars worth of fakes are sold to the public. What kinds of things are being faked? Anything that has value and is in demand. The works of great
What are Fakes and Forgeries?
Fakes and forgeries are unapproved copies sold as originals. A forger makes an *exact copy* of an object, like a painting, without the original creator’s permission, then sells it as the original. A faker makes objects that *resemble the style* of another. For example, a faker will look at all of the jewelry that came out of King Tut’s tomb. He will then create a pair of earrings that look like they could also have come out of the tomb (they have the same kind of style) and sell them as genuine tomb articles.

Not every copy made of something valuable is bad. Artists often approve the creation of posters and prints that the public can buy and hang on their walls. Copies, or replicas, of museum objects can be included in hands-on exhibits for the public to study and examine. Non-designer jeans may be just as comfortable to wear as designer jeans. Fakes and forgeries are bad for the collector because they are passed off as originals and may also cost as much as originals.

Why are collectors in our culture so concerned about whether something is original or not? It is because many people believe that only the original is valuable. Only the original is actually the product of the important individual. Even if a forger’s signature *looks exactly like* Mark McGwire’s on the baseball card, it was not the forger who hit the record number of home runs in 1998. The card signed by Mark McGwire is the one considered valuable.

Why Make Fakes and Forgeries?
Why are people creating fakes and forgeries? Money is the most common reason. A Mickey Mantle baseball card may be worth hundreds of dollars, but an *autographed* Mickey Mantle baseball card may be worth thousands of dollars. A forger will work hard learning to copy Mantle’s signature so that he/she can sign a card himself/herself, sell it as the real thing, and make a big profit. Forgery has caused people to spend tens of millions of dollars on objects that are actually worth very little.

How Do Fakers and Forgers Work?
The people who create the best fakes and forgeries are skilled professionals. They know as much as the experts and collectors about how the objects they create should look and how best to get their creations accepted as the real thing. This means they are experts themselves in the following areas:
- recreation of the style or manner in which the original materials were used
- recreation of the effects of time on the materials, if they are supposed to be old
creation of documents that “prove” something fake is something real
convincing the public they are honest people
convincing potential buyers that the sale needs to be made soon, because others will buy the item if they do not do so. This sales pitch is called “need, speed, and greed.”

Here are two examples of the ways fakers and forgers work:
♦ One man who sold a fake statue to an American museum had five letters “proving” that the statue had come from a certain collection. The fact that four of the people who had supposedly written the letters were dead at the time of the sale made it difficult for the museum to track whether the letters were true or not.
♦ Fakers know that old bronze objects gain a patina, a thin green coating. They will create this coating on fake bronze objects they have made by burying them in a pile of manure or treating them with saltpeter or vinegar.

How are Fakes and Forgeries Discovered?
Collectors and other experts have thoroughly studied original objects for many years. They know what is consistent about an artist’s brushstrokes, an author’s turn of phrase, or a factory’s trademark. As a result of this careful observation, they can often tell a fake or forgery just by examining it closely. Besides knowing that some aspect of the counterfeit object may not be consistent with a genuine object of that kind, the experts say they also have a very basic “gut reaction” to things that just are not right.

Still, not every suspected fake or forgery can be detected on sight. Scientists are continually working to create more and more efficient methods for testing these objects. Unfortunately, many of these methods are very expensive and require pieces of the object to be removed for analysis. Most collectors, including the majority of museums, cannot afford these tests and do not want their objects damaged. Only very important or very expensive objects are usually tested.

Here are just a few of the tests that can be performed to assess the authenticity of an object:

**X-Rays.** Traditionally, if an artist is not happy with an oil painting, he will often paint a new picture over the old one. Canvases can be x-rayed so that both paintings can be seen. If the painting on top is supposed to be from the 16th century, but the one underneath shows people in 18th century clothing, the scientist will assume the painting on top is not authentic. X-rays are also important
for viewing inside an object to see if it has been repaired or changed. Other uses for x-rays, called x-ray fluorescence and x-ray diffraction, help reveal what materials were used to make an object.

**Dendrochronology.** This science uses the number of tree rings in a wooden object to date it. If the date of the wood is newer than the supposed date of the object, the date given to the object is questioned. Unfortunately, the piece of wood needs to be about 100 rings wide for proper dating.

**Pigment Analysis.** The pigments, or colors, used by artists have changed over time. If a pigment only found after 1800 is on an object supposedly dated 1710, the object is not of the earlier date.

**Atomic Absorption Spectrophotometry (AAS) and Inductively-coupled Plasma Spectrometry.** These tests are based on the fact that each element in an object will show up as a different color when burned in a flame. If an element shows up that the scientist knows was not used in authentic objects of this type, the object is not authentic.

**Stable Isotope Analysis.** This test is used to discover where the marble used in a piece of sculpture was quarried.

**Radiocarbon Dating.** Radiocarbon is the radioactive form of carbon. It is formed in the atmosphere and passes eventually into plants and animals. When the plants and animals die, the radiocarbon in their bodies begins to decay at a steady rate. By measuring the amount of radiocarbon left in an organic object, its age can be estimated. This type of dating is relatively accurate for objects less than 10,000 years old.

**Thermoluminescence (TL).** TL is the light produced by heating. It is used to help date pottery. The older a piece of pottery is, the more TL it should produce when heated.

**What are the Dangers of Fakes and Forgeries?**

What happens when collectors find out that an object they have purchased is not authentic? The dealer who sold the object to the collector may lose the trust of people who have purchased or *might* have purchased objects from him/her. The museum staff member who approved the purchase of the object may not be viewed with the same respect as before, though staff members of nearly every museum have been fooled at one time or another. It can be very embarrassing to have to change label information on some objects or to take them off display once their true nature is known. It is believed that some private collectors never make it known that they have purchased fakes or forgeries.
Some collectors, though, collect only fakes and forgeries. And some museums have created interesting and popular exhibits by displaying the fakes and forgeries in their collections. In this way these objects are serving the same main museum purpose as the authentic objects in the collection: education.

**Bibliography**


