

CARE OF OUTDOOR BRONZE SCULPTURES

Bronze sculpture is meant to be used and enjoyed in the outdoor environment and can maintain the original appearance as long as it is periodically cared for. The maintenance of bronze is easy and basic. This set of care instructions is meant to make the owner of fine bronze more knowledgeable and thus better able to enjoy their bronze to their full satisfaction.

A brief introduction on the nature of patinas will start our discussion on the care of fine outdoor bronze.

Nature of Patina

Patination is the name for the process of coloring metals. These colors arise from chemical interaction between elements in the metals and various chemicals. A patina on bronze is the equivalent to rust on iron, only bronze is much more interesting than iron because the copper in the bronze reacts with different colors. The important thing to note is that the patina is not a paint but a very thin conversion coat on the surface of the bronze. Accordingly, as different chemicals are brought into contact with the surface of the metal, the color is liable to change.

When leaving the foundry, the sculptures have a coating of paste wax. This paste wax helps prevent oxygen from getting to the bronze and oxidizing the surface. Over time, this barrier is worn off and water and oxygen work together to oxidize the surface, aging the patina. The best method for caring for patinas always includes regular cleaning and waxing, which is important to both the appearance and longevity of the bronze.

Prohibitions

- 1) Never use any chemical, cleaning solutions, tarnish removers, or any other unknown or previously unused substance to clean the surface of the sculpture.
- 2) Avoid exposure of the sculpture to chemicals including but not limited to: **grass and tree fertilizer spray, chlorine, pesticides, bug sprays and foggers, window washing products, ammonia or other commonly used household products. Chemicals will adversely affect patina.** See recommended products to use in Cleaning and Waxing Procedure section below.

- 3) Never use abrasive cleaning pads, steel wool, or sand paper on the sculpture. Use of such materials could mar the surface of the sculpture and require refinishing.
- 4) Do not mount a bronze sculpture directly onto a steel base.* The merging of these two dissimilar metals, especially when wet, will, in time, cause a chemical reaction called electrolysis (where the metals may deteriorate). To avoid electrolysis, bronze sculptures may be mounted onto a steel base by placing a rubber, silicone or plastic buffer in between the two metals, ensuring that the metals do NOT meet.

* Stainless steel with an alloy number of no less than 3/16 is an exception as this quality of metal is inert.

Care Routine

We suggest the following routine, to help preserve the luster on the surface of the sculpture.

IMPORTANT NOTE: BIRD DROPPINGS SHOULD BE IMMEDIATELY WASHED OFF THE SCULPTURE. If dust, dirt, tree resin, etc. build up on the sculpture, it is time to wash. If the sculpture looks dull, it is time to wax. Waxing treatment should be done at least 4 times a year: early Spring, twice during the Summer months, and late Fall. The temperature should be in the range of 55 degrees F. to 75 degrees F. During the summer months, waxing should be done on a cloudy (but dry) day or early in the morning. Climate and location in the country will contribute to the amount of times per year that waxing will need to be done. At all times it is a good practice to keep the sculpture clean and rag buffed, at intervals, between waxes. This is to keep accumulations of dirt and droppings off the piece. Again if you feel you have any unusual situation as to climate or water conditions please contact a local landscape architect or designer to best advise on your own individual situation.

Cleaning and Waxing Procedure

Step 1: Wash the sculpture with warm water and soft cloths. A soft non-wire brush may help to get into corners and remove stubborn dirt. A non-ionic cleaner such as “Ivory Snow Flakes” should be used. “Jet dry” (made for dishwashers) can be added to the soap to avoid spotting problems. A commercial non-ionic Care of Outdoor Bronze Sculptures cleaner called “Igepel” is also available from Conservator supply companies and is mixed 1/8 (eighth) cup to 5 (five) gallons of warm water. High-grade automobile washers such as Du Pont’s Rain Dance are also acceptable. It is important to rinse the sculpture thoroughly.

Step 2: Tree resin and bird droppings are particularly destructive to patinas and should be removed as soon as they are discovered. Any droppings that have hardened onto the surface of the sculpture should be softened by placing a damp paper towel on the deposit. Accretions that are difficult to remove may be removed by scraping with a soft plastic spatula. This should rarely, if ever, be necessary.

Step 3: Allow the sculpture to dry. If the weather is not hot, leave the sculpture for a few days; if the weather is warm a few hours is sufficient; you want to be sure that all the water is out of the pores of the metal.

Step 4: Now you are ready to apply the wax (a good commercial wax such as Trewax or Butchers wax that do NOT have spirits or turpentine in it) to the surface with a soft bristle brush. Use a circular motion to try to rub the wax into the surface of the metal in a thin, uniform coat. If too thick a coat is put on, the wax may turn white or show brush strokes. One way to prevent a build-up of wax is to wipe off the brush onto a paper towel before putting the brush to the surface of the bronze.

Step 5: After the wax is dried (usually in about 20 minutes) buff the surface to a good gloss with soft, clean cloths. Try to remember you are polishing the wax and not trying to rub through the wax or the patina. If higher gloss is required or desired, harder wax may be used. This requires more skill and care, as only a small (12 X12) area should be done at a time.

Additional Comments on Sculpture to be Placed in Water

If a bronze sculpture is placed in a fountain setting, where it will be continuously splashed with water, certain precautions must be taken.

Your fountain has been equipped with a urethane filter, which should filter out debris in the water. If your area has particularly hard water you should seek consultation with your landscape designer or a water consultant on how to filter out minerals and salts.

The sculpture will have to be waxed much more frequently (perhaps every 2 months) to maintain the surface appearance. However, areas that are constantly splashed with water may result in discoloration, which is considered normal for a water installation.

A bronze sculpture should never be placed into or splashed with chlorinated water such as in a swimming pool or Jacuzzi. Chlorine is extremely corrosive and will eventually erode the metal.

Environment With High Salt Content

Areas such as those near the sea will have special concerns. A bronze sculpture which has been installed in an area where the air is heavily laden with salt will cause the patina to turn much faster. The oxidation process may turn for instance a brown patined bronze to red or green. While many consider this beautiful, the client should be aware that these changes most likely will occur.

Natural Wear and Aging

It is the natural course of bronze, even when maintained, that the patina will slowly mellow and deepen. This is highly desirable and considered part of the joy of owning fine bronze work. While bronze is very durable and will last for centuries it must be acknowledged that there will be some wearing of the patina if it is constantly touched or handled by people, shrubbery or tree branches, and even squirrels and birds.

We hope that these care instructions will help you to fully enjoy one of the most beautiful and expressive materials available to man. If you have any further questions, please call the gallery where you acquired your fine sculpture.

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