

Raleigh Coin Club Newsletter

March 1999

Cleaning Ancient Coinage

by Kent Woodson

Talk about cleaning coins is often considered taboo among modern day issues, but it is a necessity for ancient collectors. Coins that have been buried for up to 2500 years will invariably have their facades obscured with various dirt, corrosion, and tarnish. These layers of corrosion and dirt will often be as thick as the coin itself and thus eliminate any possibility for an accurate attribution.

Knowing how to clean ancient coins will afford the collector an opportunity to obtain quality coins inexpensively and/or improve the coins they currently have in their collection. I started cleaning Roman bronzes because they were inexpensive and typically offered a large amount of numismatic variation and history. Typically, I paid between \$ 1 and \$1.50 per coin in lots of 100 coins. When you order a bulk lot of uncleaned roman coins you mainly will receive 3rd and 4th century bronzes, sprinkled with some Greek, Byzantine, Ottoman, and sometimes even more modern coins. I have in my collection perhaps the worst 19th century 2 Kopek coin known to man - that was posing as a 1st or 2nd Century As (an "As" was the basic bronze coin issued by the imperial mint between the 1st Century BC until the 3rd Century AD).

The condition of the coins in these bulk lots tends to vary greatly. The type of corrosion, patina, and the severity of the "dirtiness" will affect which method of cleaning will work best. Patina is perhaps the most important thing to consider. When a coin corrodes over a long period of time it forms a layer of hard corrosion. This layer of corrosion comes in a myriad of different hues. Some of the most desired patinas are green, "sandy", and brown - these patinas took hundreds if not thousands of years to form and are irreplaceable if stripped. When the patina is stripped away, the coin will look shiny and will lose most of its value. The methods I describe below are an accumulation of findings that I have learned from experienced collectors and some of my own household experiments. The methods I use should be used on coins with an even, stable patina. Coins with an uneven patina and porous surface will generally be more difficult to clean and yield inferior results.

When you receive the coins they will be exceptionally dirty, but this should be looked at as opportunity. These coins are so dirty, that even those that dug the coins cannot determine what is underneath. Do not expect to find an exceptionally rare coin, but in my experience I have found silver denarii and moderately scare emperors and empresses. The first step is to vigorously wash the coins to remove most of the dirt on the coins. Wash the coins with a mild detergent (I use dishwashing liquid) and a stiff-bristled brush (I cut down an old toothbrush until the bristles are relatively stiff) in hot water you will be amazed at the detail that will start appearing.

Raleigh Coin Club Newsletter

March 1999

The next step is to put the coins into a container, with a lid. Once you have the coins in this container, fill with olive oil until the coins are covered and put the lid on and wait. Make sure you use a container with a lid because dirty olive oil is incredibly hard to get out of the carpet if it spills!!! This is where the patience comes in - let the coins soak in the olive oil for a month.

Once the month is up, you can start the real cleaning process. The coins are made of bronze (an alloy of copper and tin) and are covered by a patina - which is a hard shell of Corrosion on the coin. This patina adds to the appearance of the coin (the patina gives the coin it's brown or green appearance instead of the copper color that it would normally be) and can give the coin a lot of character it is important to only use a brass-bristled brush when cleaning the coins. Brass (an alloy of copper and zinc) is softer than bronze and the metal will not hurt the coin unless you are very harshly scrubbing it. When you scrub the coin, be careful not to remove the patina, - the value of the coin depends on the intactness of the patina; it has taken up to 2000 years to put that patina there and it will take an equal amount of time to get it back if it is removed. (Hint *** to speed up this process I highly recommend that you use a rotary tool with a brass bristled brush attachment (e.g. a Dremel tool -that can be found at Wal-Mart, Sears, K-mart, or any hardware store) - use the lower speeds on these tools and do not exceed 7500 RPM's).

After you have "worked the coin" over with the brass brush - look at it. If it is turning gold-colored, the chances are that the brass brush color is coming off on the coin, and progress is not being made on the corrosion. Anything that needs further cleaning put back in the olive oil for another week or two, and then repeat the process until you are satisfied.

O.K. by now you hopefully have some coins that are "cleaned" of dirt and corrosion. You are ready for the final steps - the detail work and the final cleaning. You will probably notice that there are bits of dirt in the recesses of the obverse and reverse, and especially in the lettering of the legends. You will have to do some work to get this out. You will need either a dental pick or an old chopstick to get this done, the dental pick is always sharp and easy to handle, but it is made of stainless steel and due to its hardness it can scratch the coin if you are not careful. A bit of wood offers an interesting alternative, preferably the stick should be oak (or some other hardwood) which keeps a relatively sharp point, but the wood is soft enough, where you needn't worry about scratching the coin. Sharpen the stick until you get a nice sharp point and sharpen it again as necessary. Whether you are using the dental pick or the sharpened stick, this work will be tedious so be patient and use a strong directional light to help your eyes and the final result. (Hint *** for the risk-takers out there, you can also Use hot-glue to get the detail work done - put the glue on the legends of the coin, and when the glue hardens, peel it off and the dirt comes with it!!! The caveat to this method is that if you

Raleigh Coin Club Newsletter

March 1999

are working with a silver-washed coin (Fouree) or a coin with a patchy, unstable patina, the silver or the patina could come off with the glue as well - so use sparingly and carefully.

The next step is to wash the coin with Tri-Sodium Phosphate (it can be easily found at any paint store); this will remove the oily residue of the olive oil. After using the TSP, wash with warm tap water and pat dry. A finishing touch it to seal the coin with a micro-crystalline wax (the one used by the British Museum is called Renaissance wax - unfortunately it is rather expensive and hard to find). Apply the "micro-crystalline wax with a soft cloth and remove any excess. This will gently clean the coin, seal the coin against future contaminants, and impart a soft sheen.

Cleaning you own ancient coins is the quickest and cheapest way to add to your collection. If you are patient, this will prove to be a rewarding experience and hopefully you will find a true treasure, but at the very least you will find some truly historic coins. Good luck and happy hunting!!

© Copyright Raleigh Coin Club 1999 - 2014