



The floral and foliated designs of a Kamceng pot.



Miniature boxes.



One of a pair octagonal bolster plate.

Caring for Your Antique Silver

by Robert B. Faltermeier

photographs courtesy of Museum Negara Malaysia

When we speak of decorative silver, we usually think of objects such as English tea sets made in sterling silver. Sterling silver is, in fact, an alloy of at least 92.5% silver and the rest usually copper. However, over the past decade or so, Chinese export silver has become highly sought after at auction and in antique shops.

European-Chinese trade in the 18th to early 20th centuries saw European tourists spending months at a time in China — sufficient time to allow them to have local silversmiths produce European-style designs adorned with Chinese motifs like dragons, flowers and landscapes.

Chinese silver composition in the 18th and 19th centuries was not as

regulated as it was in Europe, so the hardness, ductility and colour of Chinese silver varied.

When collecting silver, one has to understand the nature of this precious metal.

Pure silver is very soft — almost as soft as plaster. It scratches, dents and bends easily. Copper and other elements are alloyed with silver to increase its strength and durability for daily use.

Silver, is extremely reactive and, when in contact with the air, will tarnish rapidly. In urban or coastal areas, especially, the silver surface quickly turns black, a reaction mainly caused by the presence of sulphur and chlorides in the atmosphere. These chemicals are

by-products of the combustion engine, heavy industry and marine aerosols. Handling silver will also cause it to blacken because sweat reacts with clean silver to induce corrosion.

Cleaning blackened and tarnished silver is not as simple as it may seem. Commercial silver pastes can actually do more damage than good to silverware. They usually scratch and change the silver's surface composition. The most common brands contain ammonia, a chemical that dissolves the copper in the silver alloy, making the silver's surface porous and proportionally higher in silver. With less copper and more silver in the polished surface, the silver is even more reactive than the



Teapots made to Strait Chinese taste need constant care to keep them shiny.



An incense burner.

silver-copper alloy of the main body so the silver will tarnish more rapidly than before.

Another classic cleaning method employs aluminium foil, water and baking soda. This household remedy is easy to use and removes tarnish in the deepest corners and recesses. However, this electrolytic reduction process causes irreversible damage, leaving a porous, brittle surface which is easily scratched and which tarnishes readily. I encountered a 2,500-year-old Greek silver dish which had been treated using this method. The dish broke into small pieces during a flight due to the change in cabin air pressure.

In Southeast Asia, a common

method for cleaning silver uses lemon juice or the water of young coconuts. These liquids are both highly acidic and remove tarnish by corroding it away — along with some of the silver. The result is usually a dull, pitted and unsightly surface. Silver treated with lemon juice usually looks like rough steel and needs to be polished after the pickling, resulting in even further silver loss.

Nowadays, antique silver in museum collections is rarely polished because each polishing removes some of the silver surface with the tarnish. The loss of the silver blurs the object's adornments and, in the long run, obliterates decoration. If the tarnish obscures the decoration, a professional conservator can treat the object with high grade materials such as very fine calcium carbonate powder mixed with a lubricant. The treatment is performed under a binocular microscope to ensure that minimal silver is removed and no scratching occurs. The conservator treats only the parts of the silver that need polishing. The treatment is highly controlled and the process can be stopped at anytime. Usually, the engraved areas are not polished in order to highlight the raised decorative features of the design. When the treatment is complete, the conservator covers the highly reactive polished

silver with a reversible synthetic lacquer to prevent future tarnishing and obviate further polishing.

For collections, it is recommended practice to display silver only in areas with furnishings using inert materials. These materials do not release harmful acidic gases, unlike most plywood and other industrial woods which are avoided in museums. Showcases should be made using glass, metal, stone and acrylic. We recommend that silver be stored in bags that prevent tarnishing and protect the silver from damaging gases. These protective bags incorporate absorbent substances in the woven cloth or polyethylene from which they are made. Corrosion Intercept® bags and pouches are used by NASA, the British Royal Mint and the Guggenheim Museum in New York for protecting their valuable metallic materials from corrosion.

Polishing silver frequently is not recommended. It not only carries silver away but flattens or dulls fine engraving or repoussé work. Commercial silver cleaners should be avoided because they tend to scratch and deplete antique silver. This can cause inaccuracies in any future authenticity analysis and testing, which can in turn devalue the antique. Finally, when handling your silver, always remove all your jewellery and wear clean, fine cotton gloves or non-powdered plastic gloves.