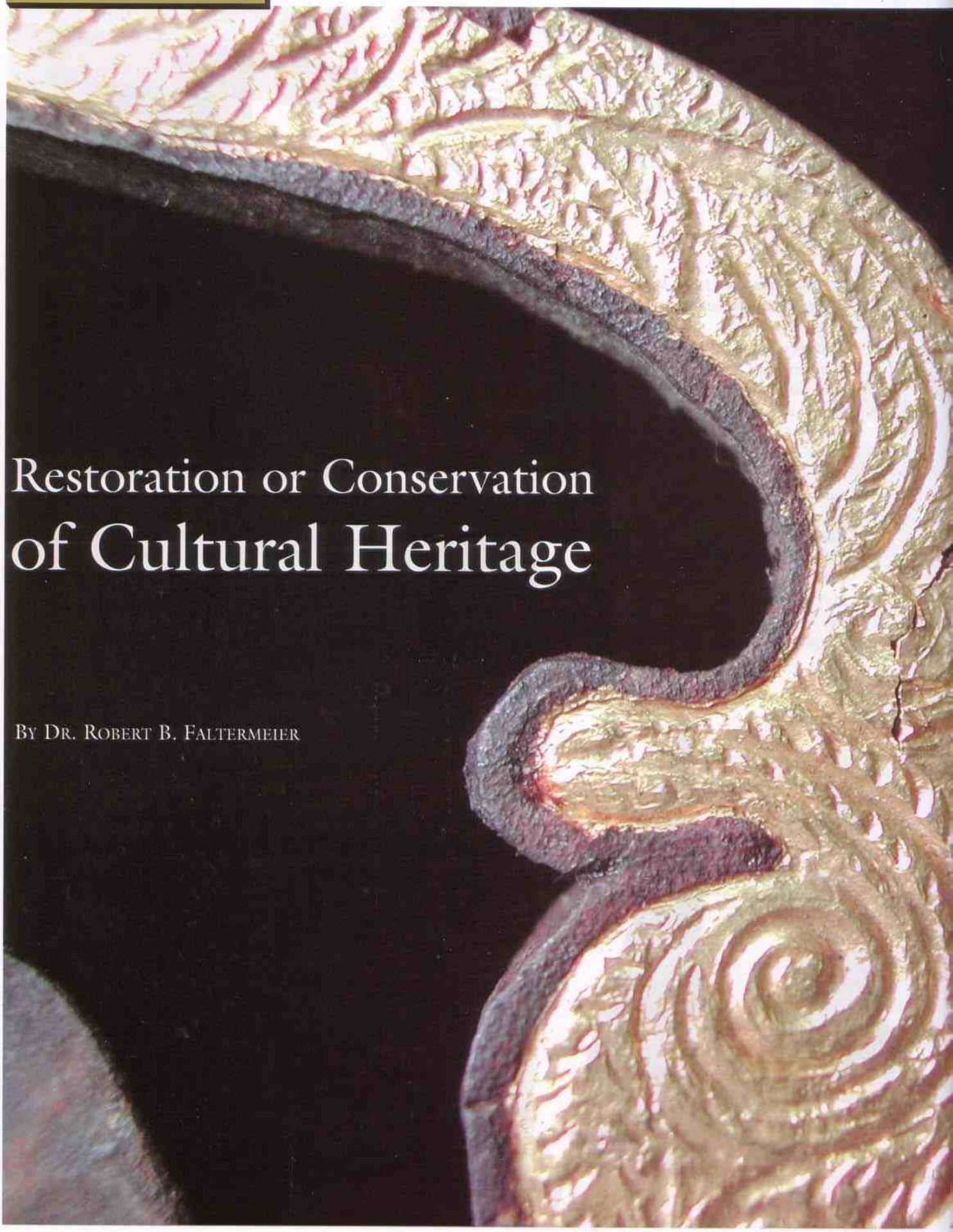


Restoration or Conservation of Cultural Heritage

BY DR. ROBERT B. FALTERMEIER

This picture *Picture 3 - shows a detail of the "kacip" before conservation. The blade is rusting, and the gold is flaking from the underlying iron.*
Right *Picture 1 - The fine silver patination acquired over time, due to atmospheric exposure, has been completely lost (original patina on the smaller ewer)*
Below right *Picture 2 - Shows the ewer after it was chemically treated by us to mimic the original appearance.*

Antiquities and other artworks in Asia Pacific are exposed to bright light, and high temperature and humidity levels. These cause the rapid decay of all but the most resilient materials used to produce these pieces. Wood, textiles, paper and other organic matters rot or are destroyed by insects. Copper, bronze, brass, silver and other metals but gold will corrode in the tropical climate. Rain causes the erosion of outdoor stone sculptures while marine life and saltwater destroy ceramics in shipwrecks.

Art dealers, collectors, institutions and conservators are frequently confronted with works of art that show signs of decay. These are often covered by previous restoration works. Such treatments often reflect the art historical views and restoration materials available to the person responsible for "fixing" the piece and the monetary value of the artwork to its owner. Although some procedures are reversible, most often they are not. This is because of the invasive nature of the treatment, which in some cases lead to damage after the surface of the piece was altered during the restoration process due, perhaps, to a wrong choice of material or its application.

Restoration or Conservation?

Restoration has the intent of returning artworks to a known or assumed state. This can include the addition of non-original material and/or destruction of existing substance(s) for the purpose of titivating the artwork.

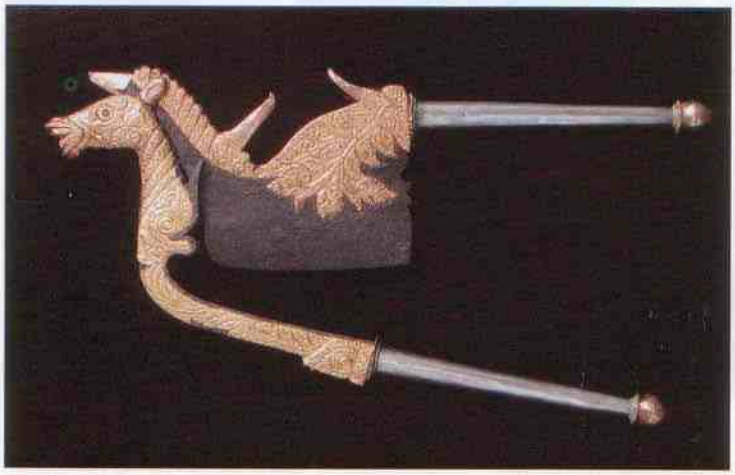
Conservation seeks to preserve cultural property for posterity. Treatments undertaken are based on the principles of minimal intervention, maximum reversibility, and preventive care. All conservation treatments are based on a sound understanding of scientific principles, and involves as little interference with the original material to preserve its intrinsic and monetary value.

Works of art have been restored for thousands of years. However, the restoration trade has evolved only in the last century into the present conservation profession. The technical approach of fixing a problem of an artwork has given way to a scientific understanding of the deterioration processes present and of their retardation or prevention. This has resulted in a less invasive approach in preserving cultural material for the future.

Here's an example: A restoration approach has resulted in the resurrection of an artwork. However, from a conservation and art historical viewpoint, important information is lost.

The larger sterling silver ewer in picture 1 was damaged and squashed. The piece was then sent to a restorer for reshaping. The reshaping was done by annealing the silver and forcing the deformed parts into their assumed position.

Heating the piece, as shown in the photo, caused numerous changes in and on the piece. The fine silver patination acquired



over time, due to atmospheric exposure, has been completely lost (see original patina on the smaller ewer in picture 1). The layer of silver oxides that has been lost was an integral part of the history of the artefact. Removing this layer also exposed the underlying silver to further corrosion. This loss of silver will result in a decrease of definition in the original depiction. It also caused fine old scratches and minor tool marks to be completely lost.

While scratches from wear and tear are often indicators of the artwork's authenticity, toolmarks have been used to group pieces and these might determine the workshop where the piece was produced. The heating of the silver also changed the piece's physical structure. Again, this can provide insight into the techniques used and is the fingerprint for each individual object. After the restoration, the piece appeared like new, but many details are lost, and thereby requiring an expert to search for iconographical details to verify its authenticity.

The new owner came to us as the ewer looked like a modern reproduction. Picture 2 shows the ewer after it was chemically treated by us to mimic the original appearance. It looks like the original silver patination. However, chemically it is nowhere like the original surface.

The museum conservation approach would have been different. The most time-consuming means would have been the production of a replica. This can be done by copying the original piece with modern casting techniques and reshaping the replica. The replica is then cast in sterling silver and patinated.

A more invasive solution would have been reshaping, by slowly forcing the bent parts outwards. This may cause small cracks or some minor breakage. However, this method would not have altered the metallurgy or the natural oxidation of the silver surface.

Many of the family heirlooms in Asia Pacific are made from composite materials. The "kacip"(betel nut cutter) is representative of pieces found in private possession. This piece as shown has been allowed to rust for many decades and has not gone through any conservation or restoration treatment. Picture 3 shows

***Top** Picture 4 - The surface was cleaned and chemically treated under a microscope to ensure maximum accuracy and minimum loss of original material.*

***Above** Picture 5 - Corrosion on this kind of decorative artwork cannot be halted indefinitely. Therefore, the surface has to be protected with a reversible protective coating.*

Below left to right
Picture 6 - The ceramic in this picture was poorly packed. It was loosely wrapped in brown paper with a thin layer of bubble-wrap and placed into a cardboard box.
Picture 7 - All the new materials are reversible and should not colour-change due to heat or sunlight.

a detail of the "kacip" before conservation. The blade is rusting, and the gold is flaking from the underlying iron.

The "kacip" was in urgent need of treatment to prevent further loss of the gold leave and the decorative parts. The surface was cleaned and chemically treated under a microscope to ensure maximum accuracy and minimum loss of original material (picture 4).

Corrosion on this kind of decorative artwork cannot be halted indefinitely. Therefore, the surface has to be protected with a reversible protective coating (Picture 5). All artwork need to be checked periodically to ensure that a previous conservation treatment will still prevent deterioration.

Damage to Artwork

Most cases of artwork damage happen during handling or when the pieces are being moved. The ones that are most vulnerable to mishandling are ceramic and glass works that may chip or break during packing or transportation. It is advisable to use professional art movers and handlers who are experienced in packing and shipping fragile works of art. This may seem to incur unnecessary expense but no connoisseur would risk devaluing an artwork by mishandling. Breakages such as the tomb guardian in picture 6 would amount to a devaluation of about ten percent of the original value.

Over the past year, about 40% of the pieces treated by Faltermeier Conservation-Restoration were damaged during transportation. The ceramic in picture 6 was poorly packed. It was loosely wrapped in brown paper with a thin layer of bubble-wrap and placed into a cardboard box.

In the conservation studio, the fractured surface was cleaned and the pieces joined together. The missing areas were gap-filled and the fill levelled with the original surface. Using mineral pigments, the fills were colour-matched with the original surface. All the new materials are reversible and should not colour-change due to heat or sunlight (picture 7).

It is important that works of art are treated by people who have undergone vigorous conservation training. These university-level programmes are available worldwide. The freshly trained conservator has then to undergo several years of internships in various museums and other institutions to acquire the practical skills necessary to effectively treat artworks. If you have a precious piece, ask the conservator to produce a portfolio of his previous projects, and ensure that at the end of the conservation treatment a written report with photographs is produced for your own record.

Dr Robert B. Faltermeier
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Preserving Your Heritage

If you have any enquiries on conservation and restoration, please post questions to HA, to be answered by Dr. Robert Faltermeier in the next issue.

Things to look out for

Do not handle artworks with bare hands. Wear clean plastic gloves or cotton gloves.

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Never pack artworks into newspaper or plastic bags

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Keep them out of direct sunlight

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Do not expose them to heat.

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Try to keep them in a stable humidity suited for the artwork.

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Do not try to fix or repair damaged pieces. Bring them to a recognised and experienced conservator.

Q: How do I spot fake bronze antiquities?

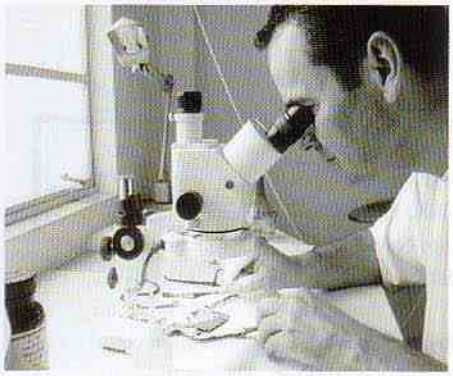
A: To separate real antique bronzes from fake works of art or reproductions, one has to look at the object from two angles.
1) There is the stylistic background or iconography; each bronze reflects the style of where and when it was produced. So it is important to know the art history of such pieces. A connoisseur or art historian will be able to help you there.
2) Bronze starts to corrode as soon as it leaves the foundry from where it was made. Due to polishing or maintenance bronze will acquire wear and tear marks and a characteristic patina. This patina when formed during burial will reflect the environment it was found in.

Q: How do I clean antique silver?

A: There are many different types of silver cleaners in the market. However, they all should be used with caution, as most of them are not at all suitable for old silver. Antique silver has acquired a black layer. When removing this black layer, some of the original silver will be lost and continued polishing will diminish the contours in the decoration. Commercial cleaners will cause abrasion to the surface, or will chemically remove the tarnished silver surface and therefore affecting the silver layer underneath as well. Important silver antiques should be cleaned by a specialist and coated with a reversible lacquer, to prevent future tarnish.

Q: If I want to buy a ceramic, how do I know if it was restored?

A: With modern restoration materials and the rampant tradition of over painting restorations and additions, this can be rather tricky. You can buy a UV-lamp used for the detection of counterfeit money. There are pocket sized ones. The principle is the same. In many cases; the UV light will show the restored section when examined in a dark room. However, with high prized artwork, always get a specialist to examine the item.



We treat and preserve decorative art pieces and sculptures of various materials to internationally recognised museum standards. Services provided also include TL-testing, radiocarbon dating, forensic analysis, and collection consulting.

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