**Figure 1** *Seated Fox*, Japan, Momoyama period, 1573–1615. Wood with pigment, h: 13 ½", Los Angeles County Museum of Art, AC1993.40.1 Before treatment.
THE FOX AND THE SAINT

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ABSTRACT

This paper will discuss two different approaches to the treatment of polychromed wood. The Los Angeles County Museum of Art (LACMA) is renowned for its collection of polychrome sculptures, not only in the area that is probably most familiar to us, European polychromed wood sculptures, but also Southeast Asian, American, and Japanese sculptures. This paper will present two different processes for the treatment of a Momoyama-period Japanese Seated Fox and an eighteenth-century Spanish Bust of a Sorrowing Female Saint. Each sculpture is the product of an evolving tradition in their respective cultures. Both sculptures share a commonality in material, polychrome wood, and standard criteria for their treatment (figs. 1 & 9).

The first consideration was reversibility. Secondly, flexibility, the treatment had to accommodate the expansion and contraction of the wood without being invasive structurally. Next, unobtrusiveness, the treatment should remain visible as a repair, but integrate sympathetically with the piece. And lastly, the materials and treatment chosen would be selected for their ease of application.

Japan’s native religion of Shinto, which has flourished alongside Buddhism up to the present day, has inspired significant architecture, painting, and sculpture. The origins of Shinto, translated literally as “the way of the Gods,” predate the arrival of Buddhism from China and Korea. Shinto is pantheistic, based on the worship of Kami, protective spirits that inhabit extraordinary natural objects, locales, and shrines. Kami are conventionally translated in English as deities. Sculptural representations of Kami and the animals that mediate between these deities and human beings are placed inside and in front of Shinto shrines; they are typically made of wood. Wooden statuary has long held a special place in Japan because of the deep reverence in Shinto belief for certain kinds of trees. Many Shinto myths and legends describe instances of trees being treated as divinities in themselves. It is likely that initially wooden statuary was carved from such sacred trees.

Most of us probably think of anthropomorphic figures of scholars, guardians, deities, and demons when we think of Japanese sculpture. However, animals are also common. Typically, Shinto animal sculptures are representations of deer, dogs, and karashishi, a mythical creature that is a cross between a dog and a lion. But in this case the deity takes the form of a very charming fox.

In the Shinto religion foxes are messengers of Inari Myojin, a deity associated with agriculture. In addition to their role as messengers and mediators, foxes have been thought of since ancient times as possessing unique spiritual and occult powers of their own. In numerous folk tales foxes are described as extremely clever “tricksters” playing a role similar to the one coyotes play in the nature myths of our own southwest.
There are many sites throughout Japan where foxes are said to have worked miracles; a shrine to Inari is often found at these spots. It was at one of these sites that LACMA’s fox was originally installed, perhaps with its mate.

This fox, a masterpiece of Shinto sculpture, dates from about 1600. His laughing expression and lively manner exemplify “foxiness”. The lifelike pose and realistic carving are emphasized by the delicate coloration and detailed painting of the fur where each individual hair can be seen.

Considering the sculpture was over 400 years old when it came to the museum, the polychrome fox was in fairly good condition (figs. 2 & 3). Aesthetically, the curator felt the exposed areas of wood and white gesso detracted from the clean lines and superb carving of the sculpture. There were extensive losses to the paint layer and the underlying gesso was friable and crumbling especially along the edges. Surprisingly, most of the pigment layer that remained was stable with only the area inside the mouth and on the underside of the belly still actively lifting and flaking. So the decision to treat the fox was based on its instability, but also it was an aesthetic and cosmetic one.

After extensive consultation with our curator of Japanese art, Robert Singer, and with active input from our director at the time, Michael Shapiro, all were eventually convinced of a very conservative approach to the treatment. First of all, I was not interested in actually filling and inpainting the fragile areas of loss. Filling with anything resembling the original material such as gesso or Polyfilla would not be readily reversible since it would resemble the original visually and structurally. Furthermore, if there was any expansion and contraction of the wooden substrate and fragile polychrome surface, rigid, plaster-like fills could eventually contribute to more damage to the remaining original material.

I thought that I could borrow from a treatment I had used in the past on Egyptian mummy masks of polychrome cartonnage (figs. 4 & 5). In 1990, the Museum of Fine Arts, Boston began an ambitious long-term loan program of ancient materials primarily Egyptian, with the Dallas Museum of Fine Arts and the San Antonio Museum. I only mention this because the treatments radically evolved over the course of the loan. For the first shipment, the objects were conservatively treated with an archeological aesthetic. The objects were stabilized, but there was only minor cosmetic restoration. However, the Dallas Museum had no Egyptian curator or staff conservator and their perception of Egyptian artifacts was garnered from the blockbuster exhibition, *Tutankhamun perfection*, a lot of bright and shiny gold. They sent many of the objects back, and the MFA conservators compromised on a few.

A treatment for the mummy masks was developed that appeared more cosmetically restored, but was very reversible. Many options were considered, but we chose to use pigmented Japanese mulberry tissue attached with methylcellulose for several reasons. The colored tissue is not used to fill the loss; rather, it is tented over the loss and is adhered just along the edges. It is extremely reversible. It maintains a surface translucency that allows the original surface to be seen. And a variability of color in the pigmented tissue gives flexibility in blending.

In figure 5, the treatment may appear over restored. However this is the level of aesthetic that was required by the Dallas Museum at the time, and the beauty of the treatment is that it can be easily reversed.

So back to the fox, although it seemed like an unlikely mix of materials for this application, the curator liked the idea of using Japanese mulberry tissue to tent over the losses. There would be no filling and no inpainting.

The surface was dusted with a soft brush followed by some light cleaning with swabs dampened in distilled water. Areas of cupped paint were relaxed by wicking a 4% solution of Klucel G in distilled water under the paint layer with a brush. The lifting areas were consolidated by brush with a 15% solution of Acryloid B-72 in acetone.
Figure 2. *Seated Fox* (Before treatment detail, back proper left side).

Figure 3. *Seated Fox* (After treatment, back proper left side).
**Figure 4**
Mummy Mask, Egyptian, 3rd Intermediate Period, polychrome wood, h: 20” Museum of Fine Arts Boston, MFA no.72.4776. (Before treatment)

**Figure 5**
Mummy Mask
MFA, Boston
(After treatment)
Thin sheets of Japanese mulberry tissue (Green's lens tissue can be used) were laid on a paper palette, brushed with a wash of colormatched acrylic paints and allowed to dry. One end of the tissue paper was crimped up for easy removal from the paper palette. The pigmented tissue was then torn, not cut, with scissors to the appropriate size. The piece of tissue was held in place over the loss with tweezers. Methyl cellulose applied with a sable brush was used to dampen the underside of the paper. (Do not saturate either the surface of the sculpture or the mulberry tissue. Very little adhesive is necessary. Flexible wax sculpting tools or burnishing tools work well to tamp the dampened tissue in place.)

Small bits of different colored tissue may be added piece by piece to the loss to correspond to subtle changes in pigmentation of the original surface. Worn, aged areas, checks or splits in the wood will show through the translucent tissue or may not be covered at all so the object will not appear over-restored. An additional benefit with this treatment approach is that the methylcellulose also consolidates the more fragile and friable edges of the loss. And since the pieces of mulberry tissue are adhered in place with a consolidant, the tissue acts as a bandaid to further stabilize and secure lifting areas of polychrome and gesso. The mends are non-invasive, very forgiving and are easily reversed when slightly dampened with water.

It was suggested by Nicholas Penny, Clore Curator of Renaissance Art at the National Gallery in London, in his book, The Materials of Sculpture, that the renewed popularity of painted wood sculpture in Europe in the 16th and 17th centuries was directly influenced by Japanese polychromed sculptures from an earlier period.

The practice of inserting a different material into eyes of sculptures was common in several cultures (fig. 6). Only the Japanese made eyes of transparent lens-shaped rock crystal, with the pupil painted in black on the underside. First, the crystal was inserted in the head. To make the eye appear white, a bit of handmade paper was placed between the crystal and the surface of the wood. It is probable that this technique was carried back to Europe by Jesuit missionaries, for glass eyes found in Spanish wooden sculpture of the seventeenth and eighteenth centuries were also inserted from within.

The Japanese influence on European sculpture and a resulting renewal of popularity for polychrome wood has already been mentioned. So it's appropriate to introduce a Spanish sculpture in this context: the Bust of a Sorrowing Female Saint circa 1750 was a gift to the museum from its former curator of sculpture, Peter Fusco and his wife Laurie. It was first lent to the Spanish Polychrome Sculpture exhibition at LACMA in 1994. The bust reveals the dramatic shift in style from the ornately gilded works of the 16th and early 17th century towards stunning realism. The delicate carving of the face contrasts sharply with the agonized expression. We assume that this bust is part of a larger figure called an imagen de vestir, literally “clothed image,” that is, a figure made to be dressed. (fig. 7)
The sculptures were fabricated of a simple armature, attached to which were a carved head and hands. Only the parts of the body that were exposed needed to be finished as beautifully as this bust.\textsuperscript{12} This type of sculpture was used in devotional processions during Holy Week, on All Saint’s Day, and throughout the year. It follows in the tradition of liturgical art seen in Italy, Spain, and Colonial Mexico of dramatic representations of martyrs and sorrowful saints often depicted in tortured or grotesque postures with realistic, vibrant glass eyes elevated to the heavens in supplication.\textsuperscript{13}

The wear of centuries showed in the glass eyes of the \textit{Sorrowing Female Saint}. These are made of thin layers of glass painted on the reverse to imitate the human eye. Though paint on this figure has cracked and abraded over time, the eyes could not be removed for consolidation without causing extensive additional damage to the surrounding surface.

A layer of adhesive, old varnish, and paint on the outer surface of the glass gave the eyes a disturbing milky opacity. The adhesive was applied in a thick viscous application, probably in an attempt to repair the cracks through both eyes. After consulting with the curator, the old restorations were removed from the surface of the glass with swabs dampened in organic solvents. The eyes have subtly returned to their original vibrancy and heighten the sculpture’s lifelike appearance and uncanny sense of vitality.

When the \textit{Sorrowing Female Saint} arrived in the museum, it had undergone the normal effects of aging. The edges of the bust, the bridge of the nose, and patches on the back of the neck were abraded with the paint layer worn away. There were areas of lifting and flaking paint around the eyes and inside the split on the proper left side of the head.

The most disturbing damage to the bust was a distraction to the beauty of the object itself. The sculpture was disfigured by hundreds of small holes in the chest and neck, caused by wood burrowing insects. Indeed this damage lends itself to the idea that this sculpture at one point belonged to an \textit{imagen de vestir}. The cloth of the figure’s costume would have provided a haven for insects, which unfortunately attacked the wood.
Figure 8
Bust of a Sorrowing Female Saint, Spain, circa 1750–60. Polychrome wood with painted glass eyes, h: 21½" Los Angeles County Museum of Art, AC1995.174.1 (Before treatment)

Figure 9
Bust of a Sorrowing Female Saint (After treatment)
Working closely with our curator of European Painting and Sculpture, Mary Levkoff, we came up with another conservative, but very different treatment modified for this Spanish polychrome sculpture (figs. 8 & 9).

The sculpture was first treated with the nitrogen anoxia technique to halt the insect infestation. A light cleaning with a vacuum and soft brushes removed surface dust and grime. Areas of lifting and flaking paint were consolidated with a 10% solution of Acryloid B-72 in acetone applied with a sable brush.

The eyebrows and hair, the color of which had worn away over time, were strengthened by inpainting under the microscope. Attempts to inpaint with watercolors were unsuccessful because they beaded up or pulled away from the polychromed surface, and precise control was required to inpaint only the section of each hair that was missing. I tried various combinations of paints mixed with a surfactant, oxgall, but with no success.

On the advice of Joe Fronek, Senior Conservator of Paintings at LACMA, I tried inpainting with the first batch of experimental Gamblin pigments, an aldehyde resin (BASF) mixed on a palette with acetone. The Gamblin paints were extremely effective on the eyebrows and surprisingly, could also be applied directly onto wax fills.

Discoloration on the face and neck such as fly-specks and particulate dirt were carefully removed with a mini scalpel. I did not clean the entire bust, but only site specific accretions working under the microscope so the natural aged patina was not altered.

But the real reason for treatment remained. Hundreds of insect holes covered her neck and chest. The viewer’s eye was drawn to the disfiguring damage instead of to the sculpture. But to fill the holes on the Sorrowing Female Saint, different options had to be considered. The nature of the damage was very different from the losses on the Seated Fox, but the criteria for treatment was the same; reversibility, flexibility, and unobtrusiveness. Again, no rigid fill materials, and the treatment had to accommodate expansion and contraction of the wood without being invasive structurally. The slightly fibrous and hairy texture of mulberry tissue, although it worked for Seated Fox was less attractive on the chest of the Sorrowing Female Saint. With so many small losses, tiny torn bits of tissue would have covered the entire bust and would have significantly altered the smooth semigloss surface, making it matte and fibrous in appearance.

A material was needed that was easy to control and manipulate since many very small losses were involved. And it was also preferable that the fill material would be color-matched since filling and inpainting every hole individually would be very tedious. The solution chosen was wax. Microcrystalline wax was melted and mixed with powdered pigments. A wax palette of flesh tones was created in a crimped aluminum dish. The colored wax was used to plug just the top of each hole and, wherever necessary, the wax fills were inpainted to integrate with the surrounding tones of the bust. Very little inpainting was necessary. Again, the channels left by the wood-burrowing insects were not filled, just the top of each hole. While distinguishable in raking light, the visual impact of the losses is significantly reduced allowing the viewer to focus upon the artwork as opposed to areas of damage.

As object conservators, we are frequently called on to treat unique and varied materials; ivory, lacquer, carved wood, metals, plastic, glass, marble, ceramics, and stone. With each treatment and different material, we are presented with a new challenge. I think this is one of the main reasons we choose to work in this field.

The materials we treat may change, but the criteria for treatment are basically the same. Polychrome wood has always provided special challenges. We attempt to make our treatments completely reversible. Of course, in the real world, especially in objects conservation, complete reversibility is not
always possible. I'm sure we can all think back to treatments that at one time were considered state of the art and are now disasters waiting to be revisited.

With wood, we search for a non-invasive treatment approach using materials that are flexible and will accommodate the expansion and contraction of the surface without being invasive structurally. With any treatment, it should be as unobtrusive as possible; the treatment should remain visible as a repair, but integrate with the piece. The last consideration, the materials and treatment, should be selected for their ease of application. Simplicity is key; usually, the less you do to the object, the better.

**Bibliography**


**Materials and Suppliers**


Acryloid (Paraloid) B72: An ethyl methacrylate copolymer in a 10% solution in acetone. Distributed by Conservation Support Systems, 924 West Pedregosa Street, Santa Barbara, CA 93101. Tel: (800) 482–6299.

Gamblin Conservation Colors: an aldehyde resin commercially produced by BASF.

rgamblin@teleport.com.

Multiwax w-445: A microcrystalline wax distributed by Conservation Support Systems of Santa Barbara, CA. Tel: (800) 482-6299.