



工芸篇

Craftworks

1 猩々漆絵油壺 (クリーブランド美術館) 修理前
"Jar with Scenes of Frolicking Monkeys" (The Cleveland Museum of Art)
Before restoration



2 修理後
After restoration







3 修理前
Before restoration



4 修理後
After restoration



5 修理前
Before restoration



6 修理後
After restoration



7 口縁部分の復元
Reproduced part, rim



8 狸々の漆絵
Urushi-e of a frolicking monkey

猩々漆絵油壺

平成15・16年度修復事業



品名：猩々漆絵油壺 一合
所蔵：米国 クリーブランド美術館

クリーブランド美術館蔵
猩々漆絵油壺

漆芸品修復家・漆芸作家
 北村 繁

品名 猩々漆絵油壺 一合
 所蔵者 米国 クリーブランド美術館

保存修理は平成15年度、16年度の二カ年に亘って実施した。

法量 胴最大径 47.2cm 高さ 49.4cm

品質形状

この油壺(図1~6)は、鎌倉時代(14世紀)の作とされ、東大寺所蔵の重要文化財「黒漆油壺」(図9・10)にも共通する物で、本体に四本の反りを持った脚が取り付けられていたと考えられる。京都高山寺に伝わった「鳥獣人物戯画」や「扇面古写経」の中に描かれているように紐を掛けて棒に釣り、二人で担いで持ち運んだと思われる。

木地は樺材を横木取りで用い、本体に対して縦横に四分割で輻轆で整形し、底板は檜の柁目板を円形に製材して嵌め込んでいると思われる。肩の張った壺形で口縁には反りがあり胴には四条の彫線による紐帯が三段に廻らされている。木地の上に全面に布着せをした後に漆下地を施し、黒漆を塗って仕上げられている。反りのある口縁から首の内面、三段に廻らされた紐帯は朱漆を塗り、紐帯で区切られた最下段の黒漆塗面には四体の猩々の図が朱漆で描かれている。

胴の最も肩の張り出した所には四ヶ所に四弁花文の彫りが施された金銅製円形金具(図11)が取り付けられている。この金具は嘗て取り付けられていた四本の脚を外した跡に取り付けられたものと考えられる。底板には「正あん四ねん」(図7)の墨書銘があり、正安四年(1302)という制作年代を推すこ



図1

図9 東大寺油壺(B)
 Oil Jar in the collection
 of Todaiji (B)



図10 東大寺油壺(A)
 Oil Jar in the collection of
 Todaiji (A)



とのできる作品である。なお、東大寺所蔵の油壺には胴部に「東大寺 油倉之 常住物 元徳貳」の銘が朱書されており、元徳二年（1330）という年代と推すことができる。

記録によると、この油壺はクリーブランド美術館に1984年に収蔵されている。

なお、クリーブランド美術館に於いて、既にX線写真撮影が行われている為、今回はX線写真撮影を行わなかった。



図 2



図 3



図 4



図 5



図 6

図 1～4 修理前 側面
Body, before restoration
図 5～6 修理前 底面
Bottom, before restoration



図7 底板に書かれた墨書銘

Chinese ink inscription on the bottom board



図8 修理前 胴に生じた亀裂

Crack on the body, before restoration

破損状況

全体に虫食い穴が確認され、木地全体に虫食いが見られると考えられている。特に底(図6)は虫食いによる破損が酷く、木地が露出して水平に設置する事ができない状態である。また首から口縁部にかけて木地から大きく欠損し(図12)、口縁部の欠損も激しく全体の風合いを損ねている。また、胴の木地接合部の一部には縦方向の亀裂が生じている(図8)。亀裂が肩に廻らされた朱の紐帯(図13)、全体の黒漆塗膜は経年劣化によって塗膜の亀裂が全体に確認できる。亀裂は下地にまで及んでおり、下地層から塗膜が剥落し、布着せが露出している箇所も多く見られる。クリーブランド美術館の修理記録によると、収蔵された後に塗膜の保存処置が施され、酢酸ビニル系樹脂(AC234)で塗膜の剥落止めを行った後、シリコン樹脂系の研磨剤(OZ)で艶出しの処置が施された。これによって塗膜の剥落は幾分抑えられているものの、黒漆塗膜の光沢の変化や肩に堆積した汚れ(図14)が樹脂によって固められているなど、樹脂の影響で、全体の色調に違和感を覚える。肩の張り出し部に取り付けられた四弁花文金銅製金具の内、一点のみ金具の一部が欠損し、内側に嵌め込まれた当て板と本体の漆塗面が露出している。この露出した部分の漆塗面は、金具に覆われていた事で光沢のある健全な状態で残っており、当初の状態を知ることが出来る(図15)。

修理方針

修理については奈良国立博物館 地下修理室にて北村謙一(昭彦)の監督の下、国指定文化財に適用される現状保存修理の原則に基づいて行う事とし、修理仕様の詳細については東京文化財研究所修復技術部長、加藤寛氏、所蔵者であるクリーブランド美術館保存担当ブルース・クリスマン氏と協議した上で実施した。

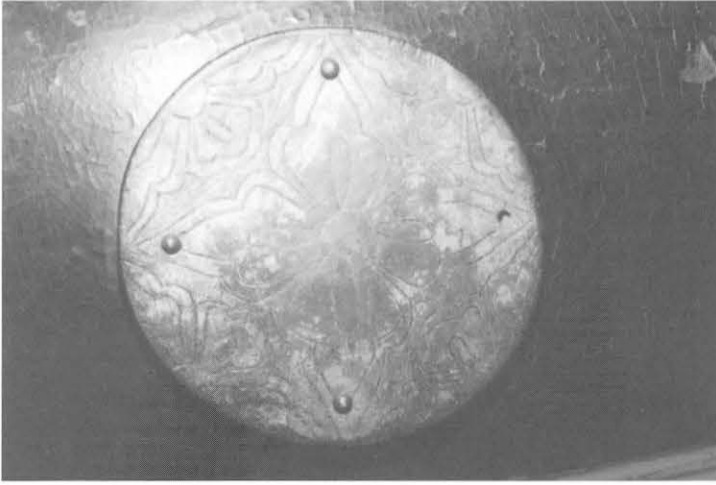


図11 肩の四方に取付けられた金銅製円形金具
Circular, gilded copper fitting found on the shoulder



図12 修理前 首から口縁部にかけての大きな欠損
Large missing area extending from the neck to the rim, before restoration

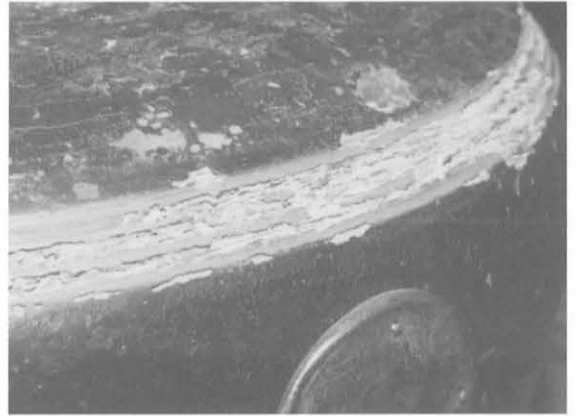


図13 修理前 肩の朱塗紐帯
Vermilion belt-like decoration on the shoulder, before restoration



図14 修理前 肩の塗膜欠損部と付着した汚れ
Shoulder before restoration, part with missing coating film and dirt



図15 修理前 金銅製円形金具欠損部から覗く黒漆塗膜
Black urushi coating film observed from the missing part near the gilded copper fitting, before restoration

修理仕様

平成15年度

1. 東京文化財研究所から奈良国立博物館 地下修理室に美術品専用車にて移動、搬入した。
2. 修理に先立ち、類例である東大寺に所蔵されている重要文化財の黒漆油壺 二合について目視調査を行い、木地構造、形状などについての比較資料とした。
3. 修理前の写真撮影を行った。(4X5キャビネ版カラーポジ)
4. 保存処理に用いられた樹脂の除去に用いる溶剤を選定するために、東京文化財研究所にて人工暴露で劣化させ、塩化ビニル樹脂とシリコン樹脂を塗布した手板を用いて実験を行い、除去に用いる溶剤の選定を行った。その結果、樹脂の除去にはエタノールを用いる事で決定した。
5. 樹脂の除去作業に先立ち、漆塗膜の欠失部周辺など漆塗膜の剥落が更に進行する危険性のある箇所に小さく切った雁皮紙を貼り、養生を行った (図20)。
6. 4の決定が出た後、実際に樹脂の除去作業に掛かった。エタノール70%水溶液で綿棒や柔らかい木綿布を用いて樹脂を拭い取って可能な範囲内で樹脂の除去を行った。
7. 首から口縁部にかけて木地から大きく欠損した部分については所蔵者、東京文化財研究所と検討した結果、欠損形状に合わせた黒漆塗り仕上げの補材を制作し、本体とは接着せずに着脱可能な形態とした (図21・22)。
8. 7の検討結果を受けて補材の制作に取り掛かった。まず首と同形状の木地を良く乾燥した櫟で本品と同じ木取り方向でロクロ挽きにて制作 (西村直木氏制作) し、そこから欠損部と同形に補材木地を切り出し、布着せ、漆下地を施した後、黒漆と素黒目漆の混合漆を塗った (図16~19)。

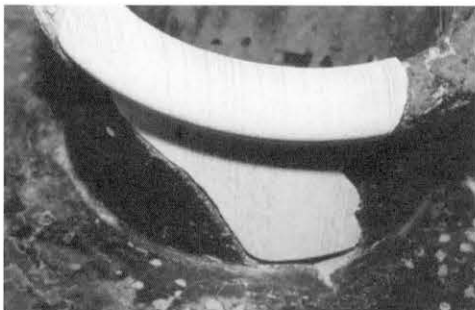


図16 口縁部の補材制作・木地
Reproducing the rim, substrate



図17 口縁部の補材制作・漆下地
Reproducing the rim, urushi foundation



図18 完成した補材
Reproduced part completed



図19 欠損部に補材を嵌めた状態
Reproduced part attached to the missing part



図20 漆塗膜の剥落危険箇所を雁皮により養生

Facing with *gampi* paper parts of the urushi coating film in danger of lifting

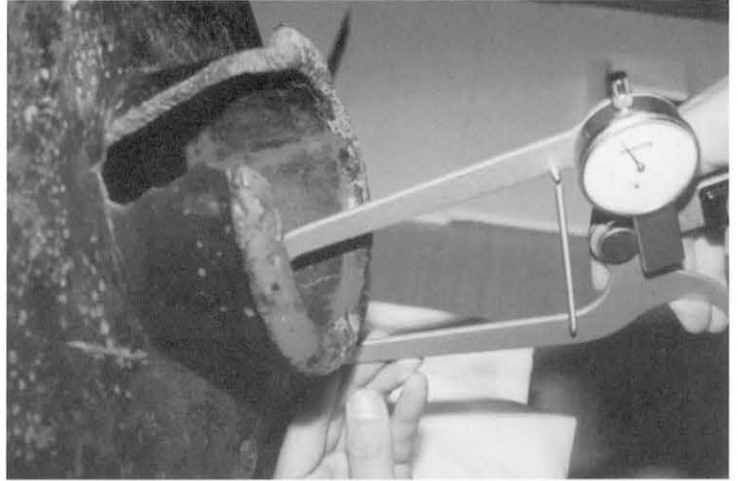


図21 欠損部の補材制作のための採寸

Taking measurements of the object in order to reproduce the missing area

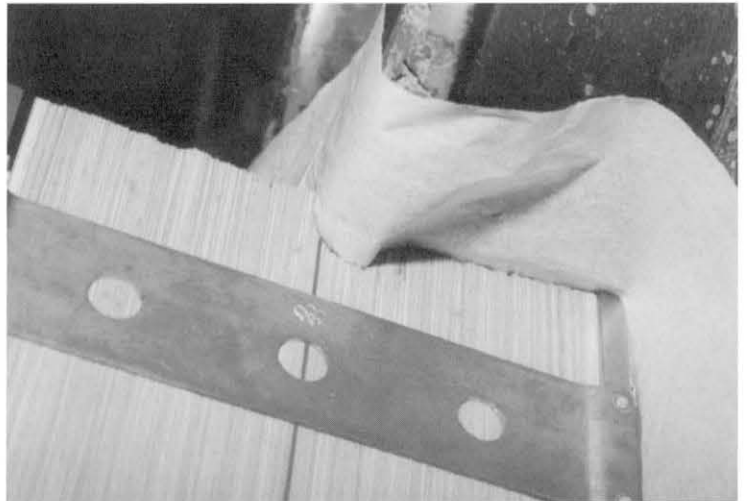


図22 欠損部の補材制作のための形状記録

Measuring the missing area to make the reproduced part

平成16年度

1. 引き続きエタノール水溶液を用いて樹脂の除去作業を行った。これによって塗膜表面の樹脂はある程度除去する事が出来た。また、肩の部分の付着していた汚れも可能な範囲内で除去する事が出来た。木地露出部などに堆積した汚れは、竹箆などを用いて可能な範囲で掻き出して除去した。
2. 朱漆塗りの口縁部、胴に廻らされた紐帯、猩々図は、塗膜表面の劣化のために朱の顔料がクリーニングによって落ちる危険性があるので、特に注意深くクリーニング作業を進めた (図23)。
3. 漆塗膜が剥落して布着せが露出した部分は希釈した日本産上生漆を浸透させて強化した。
4. クラックが生じて浮き上がり、剥落の危険がある漆塗膜は空隙部分にリグロインで希釈した麦漆を含浸し、余分な漆を拭き取った後、ポリ塩化ビニリデン製フィルム、アクリル板を置き、肌糸の張力などを応用して加圧して接着した (図24)。
5. 漆塗膜欠損部周辺で塗膜断面の厚さ分だけ段差が生じている所は、取り扱い時に引っ掛かって剥落する恐れがあるため、木屎漆や錆で断面をくくり、剥落防止の処置を行った。
6. 全体の漆塗膜を強化するため、灯油で10倍程度に希釈した日本産上生漆を筆で塗布して含浸させ、乾燥しないうちにリグロインで塗膜表面の漆を完全に拭き取った。黒漆部分はこの作業を2回行った。朱漆塗り部分は日本産素黒目漆を用いて同様の作業を1回行った。
7. 底面の虫食による破損部は、露出した木地に希釈した日本産上生漆を十分に浸透させて木地の強化を行った後、空洞部や抉れた部分に木屎漆を充填して形状を補って行った (図25)。大きな欠損部は粒子の粗い木粉を混ぜた木屎漆から充填を初め、段階的



図23 胴の漆塗膜クリーニング (中央から左がクリーニング前)

Cleaning the coating film of the body (left, before cleaning)

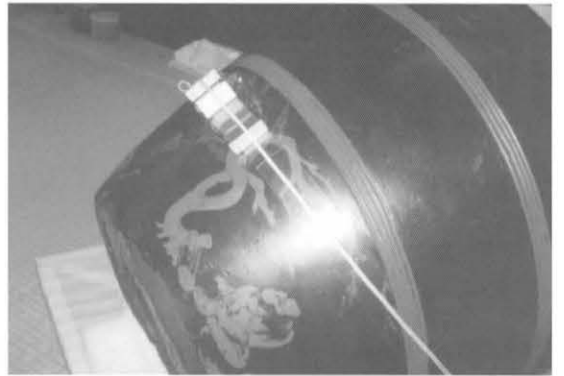


図24 浮き上がった漆塗膜の圧着作業
Press-stabilizing the lifted urushi coating film



図25 生漆による木地固め及び、破損部への木屎漆の充填
Consolidating the substrate with raw urushi and impregnating kokuso into the damaged parts

に木粉の粒子を細かくし、形状を整えていった。木屎の充填は主に虫食によって抉られた部分のみとし、大規模な形状の復元などは行わず最小限にとどめた。

8. 肩の朱帯紐周辺、口縁の虫食による破損部は露出した木地に希釈した日本産上生漆を十分に浸透させて木地の強化を行った後、木屎を充填して形状を整えた (図26-28)。
9. 破損部に充填した木屎が十分に乾燥した後、木屎の表面をリユーターで研磨して表面を整え、日本産上生漆を浸透させて周囲と調和するように仕上げた (図29)。



図26 乾燥した木屎漆の表面を研磨して周囲の木質部と調子を合わせる

Grinding the surface of the hardened *kokuso* in order to adjust the part to its surroundings



図27 朱塗紐帯の木地露出部分を生漆にて木地固め
Consolidating the substrate with raw urushi on parts around the vermilion belt-like decoration where the substrate has become exposed



図28 木地の凹部に木屎漆を充填
Impregnating *kokuso* into dents in the substrate

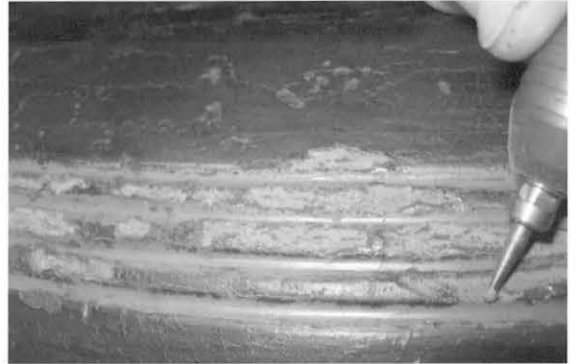


図29 乾燥した木屎漆の表面を研磨
Grinding the surface of hardened *kokuso*



図30 新調した桐箱に油壺を収めた状態
Object placed in a newly-made paulownia storage box

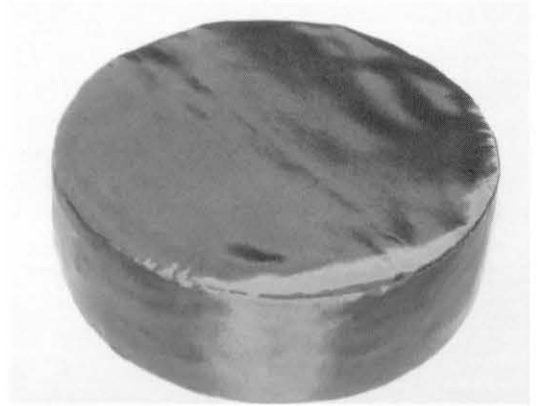


図31 安置する為に底に嵌め込む支持台
Support to stabilize the object

10. 現状のままでは接地面が不均等で安定しないため、底に嵌まり込んで底板で接して水平に保つための支持台を制作した。底板には墨書銘もあるので、支持台は若干のクッションを持たせ、接触面が滑らかで展示時に目立たないように肌理の細かい黒色の化繊布で縫製したものとした(図31)。
11. 保存箱を新調した。(櫥食式扉で底にゲス板を入れ、その上に本品を載せて出し入れを行う。なお、ゲス板を引き出した際に地面と桐箱との高低差なく安全に本品の収納作業が出来るように付属の置き台を制作した。(図30))
12. 修理後の写真撮影を行った(図32~37)。(4 X 5 キャビネ版カラーポジ)
13. 胴に描かれた狸々図の模写(図46~49)や塗膜表面からの20倍顕微鏡デジタル写真撮影(図38~43)などを行い記録した。
14. 奈良国立博物館 地下修理室より美術品専用車にて東京文化財研究所へ運搬、返却した。



図32



図33



図34



図35



図36

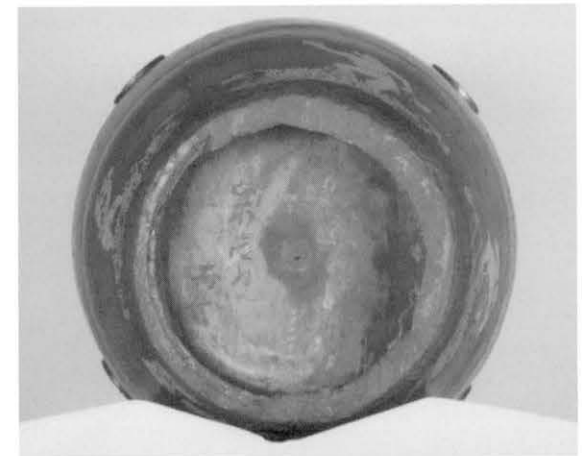


図37

図32~37修理後
After restoration



図38 黒漆塗膜表面顕微鏡写真 (修理前X20)
A micrograph of the surface of the black urushi coating film (before restoration, x20)



図39 黒漆塗膜表面顕微鏡写真 (修理後X20)
A micrograph of the surface of the black urushi coating film (after restoration, x20)

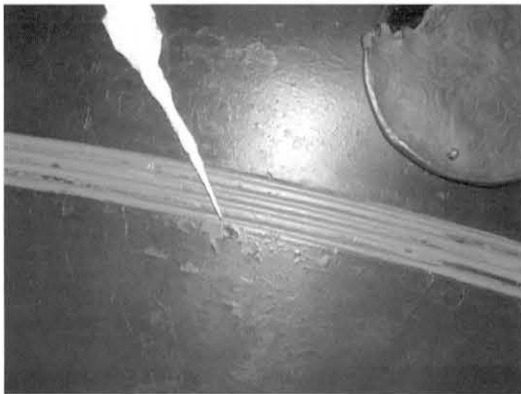


図40 朱塗紐帯表面
The surface of the vermilion belt-like decoration

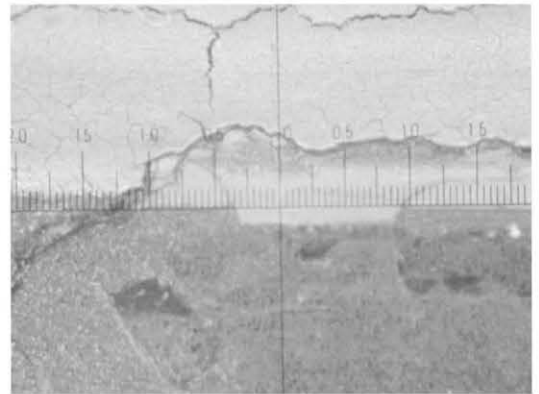


図41 図40の顕微鏡写真 (X20)
A micrograph of Fig. 40 (x20)



図42 猩々図表面
The surface of the design of the frolicking monkeys

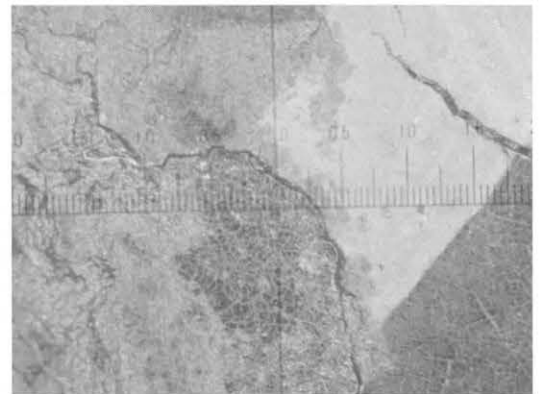


図43 図42の顕微鏡写真 (X20)
A micrograph of Fig. 42 (x20)

類例との比較

	猩々漆絵油壺	東大寺 油壺 (A) *	東大寺 油壺 (B)
寸法	胴径47.2cm 高さ49.4cm	胴径40.4cm 高さ43.7cm	胴径 39.2cm 高さ 57.2cm
本地構造等	横木取り。縦横4分割。布着せあり。	横木取り。首、肩、裾で3分割。布着せあり。	横木取り。縦横4分割。布着せあり。
成形方法	内、外ともに轆轤。	内、外ともに轆轤。	内は別りぬき。外は轆轤。
胴の形状	肩の張りが強い。	肩の張りがなだらか。	肩の張りがなだらか。
裾から底の形状	裾の反りなし。	小さな台のような形状。	裾の反りあり。
脚	現存しない。胴の張り出した部分4箇所に金具あり。	現存しないが、胴に4本の脚の跡が残る。	4本の脚が本体に取り付けられている。
朱紐帯の数など	胴に4本のが3組。帯一本あたり3列の彫線紐。最下段に猩々の朱漆絵。	胴に4本のが4組。帯一本あたり4列の彫線紐。	胴に3本のが4組。帯一本あたり3列の彫線紐。現在の朱紐帯とは違う位置に3本の紐帯の跡が確認できる。
銘文など	底板に墨書で「正あん四ねん」(1302年)	胴部に朱漆で四行「東大寺」「油倉之」「常住物」「元徳貳」(1330年)	胴部に朱漆で四行「東大寺」「油倉之」「常住物」「元徳貳」



図44 東大寺油壺 (B)
Oil Jar (B) in the collection
of Todaiji



図45 東大寺油壺 (B)
Oil Jar (B) in the collection of Todaiji



図46



図47



図48



図49

図46~49 猩々図 模写
Reproduction copy of the design of the frolicking monkeys

On the Restoration of “Jar with Scenes of Frolicking Monkeys”
in the Collection of The Cleveland Museum of Art

KITAMURA Shigeru
Urushi Conservator/Artist

Name of the object: “Jar with Scenes of Frolicking Monkeys”

Owner: The Cleveland Museum of Art

Period of restoration: JFY 2003–2004 (2 years)

Dimensions: Maximum diameter of the body 47.2cm Height 49.4cm

Description

The oil jar (Figs. 1-6) is said to have been made in the Kamakura period (14th century) and is similar to two black Oil Jars in the collection of Todaiji temple (Figs. 9, 10), which are designated important cultural properties. It is believed that there were four curving legs attached to the jar. It is also believed that it was hung on a pole with cords to be carried by two people, as is depicted in the scroll “Caricature of Animals and Humans” and the “Fan-paper Album of Hokekyo Sutra” at Kozanji temple in Kyoto

The substrate is made from a block of zelkova wood in such a way that the cut ends are at the sides of the jar (*yokogidori*, rather than at the top and bottom). This block was then cut vertically and horizontally into four parts, and the inside and the outside shape formed on a turning wheel. The bottom board is made of straight-grained cypress wood that was cut into a circle and fitted into the substrate. The shoulder is rounded and the rim is turned back. The body of the jar is decorated with three sets of belt-like decorations consisting of four carved lines. *Numokise* was applied over the entire substrate, then urushi foundation was applied and the object was finally coated with black urushi. The part of the jar from the turned-back rim to the inside of the neck as well as the three sets of belt-like decorations are coated with vermilion urushi. Four monkeys are depicted in vermilion urushi on the surface of the lowest section of the jar.

There are circular, gilded copper fittings (Fig. 11), each with a carved design of a four-petal blossom, at four positions on the shoulder of the jar where the diameter is the largest. It is believed that these metal fittings were attached where once there were four legs. There is an inscription in Chinese ink on the bottom board that reads 正あん四ねん (Fig. 7), suggesting that the jar was made in the fourth year of Seian era (1302). The inscriptions written in vermilions on the bodies of the Oil Jars in the collection of Todaiji read 東大寺 油倉之 常住物 元徳貳, suggesting that they were made in the second year of Gentoku (1330).

According to records, this oil jar was accessioned into the collection of The Cleveland Museum of Art in 1984.

X-ray radiographs were not taken in the course of restoration since they had already been taken at The Cleveland Museum of Art.

Condition of Damage

There were insect holes over the entire jar that extended to the substrate. Insect damage was particularly severe on the bottom (Fig. 6) and the substrate was exposed, making it impossible to set the jar flat. A large portion of the jar from the neck to the rim was also missing (Fig. 12), and this was destroying the overall impression of the jar. There was also a vertical crack on the part of the body where the parts of the substrate were joined (Fig. 8). Cracks were found on the vermilion belt-like decoration (Fig. 13) around the shoulder of the jar. Cracks in the black urushi film were also found over the entire surface. These cracks extended into the foundation and the coating film had become lifted from the foundation layer, exposing the *nunokise* at many places. According to a restoration record made by The Cleveland Museum of Art, the coating film had been treated after the jar was accessioned. Further lifting of the coating film was prevented by applying polyvinyl acetate (diluted Rhoplex AC234) and then a silicon resin (OZ polish) was applied to bring out the luster. These measures succeeded in preventing further lifting of the coating film to a certain degree, but adverse effects of the use of resins were also observed. For example, there was a change in the luster of the black urushi coating film and the dirt that had accumulated on the shoulder (Fig. 14) was trapped beneath the resin. As a result, the overall tone of color was affected negatively. A part of one of the metal fittings on the shoulder was missing, exposing the reinforcement board that had been fitted to the inside of the metal fitting and the urushi coating surface of the body underneath. The coating film on this exposed portion had retained the original luster because it had been covered by the metal fitting. It was therefore possible to see the original condition of the coating film (Fig. 15).

Restoration Policy

It was decided that restoration would be conducted under the guidance of Kitamura Ken'ichi (Shosai) in the restoration studio at the Nara National Museum and according to the principles of maintenance of the present condition that is applied to the restoration of nationally designated cultural properties. Details of the restoration specifications were discussed with Kato Hiroshi, Head of the Department of Restoration Techniques at the National Research Institute for Cultural Properties, Tokyo and Bruce Christman, chief conservator at The Cleveland Museum of Art, the owner of the jar.

Restoration Specifications

Japanese Fiscal Year 2003

1. The object was transported on a special truck of Nippon Express for the movement of art objects from the Institute to the restoration studio at the Nara National Museum.
2. Prior to restoration, visual inspection of the two similar black urushi oil jars in the collection of Todaiji was conducted. Information concerning the structure of the substrate and shape of the object was gathered for comparison.
3. Photographs were taken of the object before restoration (4x5 color slides).
4. In order to select a solvent for removing the synthetic resins used in a previous restoration

treatment, sample boards coated with polyvinyl acetate and silicon resins and artificially aged at the Institute were tested. As a result, it was decided to use ethanol in removing the resins.

5. Prior to removing the resins, small pieces of *gampi* paper were adhered to the areas around the missing coating film where there was danger of further lifting of the coating film (Fig. 20).
6. After the decision was made regarding which solvent to use (4), the actual work of removing the resins was begun. Cotton swabs and soft cotton cloths moistened with 70% aqueous ethanol were used to wipe off as much of the resins as possible.
7. In carrying out the above work, a discussion was held with the owner of the object and the Institute concerning the largely missing part that extended from the neck to the rim. As a result, it was decided to make a black urushi coated attachment to match the shape of the missing part. This was fitted to the object, though not adhered, so that it may be removed when necessary (Figs. 21, 22).
8. Once the decision concerning the attachment was made (7), work was started to make this attachment. First, a well-seasoned zelkova wood was used to make a substrate of exact shape as the neck. The direction of the grain was kept the same as on the original, and the attachment was shaped on a turning wheel by Nishimura Naoki. After applying *nunokise* and urushi foundation, it was coated with a mixture of black urushi and *sugurume urushi* (Fig. 16-19).

Japanese Fiscal Year 2004

1. Removal of the resins was continued with ethanol and water. It was possible to remove resins from the surface of the coating film somewhat. It was also possible to remove the dirt that had become attached to the shoulder to a certain degree. Dirt that had accumulated on the exposed substrate was removed by gently scraping it off with a bamboo spatula.
2. Since there was a risk of the vermilion pigment used in the vermilion urushi of the rim, the belt-like decorations on the body and the drawings of the monkeys becoming lost due to deterioration of the coating film, extra care was taken in the process of cleaning (Fig. 23).
3. Diluted Japanese raw urushi was used to reinforce the parts where the urushi coating film had become lifted, exposing the *nunokise*.
4. Diluted *mugi-urushi* was impregnated into gaps on the coating film that had formed as a result of cracking and where there was a risk of further lifting. After wiping off the excess urushi, vinylidene chloride resin film and an acrylic plate were placed on top of these parts and pressure was applied by making use of the tension of a kite string (Fig. 24).
5. There was a risk that the coating film may become detached during restoration work at places where there was a difference in surface level. Therefore, *sabi* was applied to the edges of the lifted coating film to prevent further damage.
6. In order to reinforce the entire urushi coating film, Japanese raw urushi diluted approximately 10 times with kerosene was impregnated with a brush. Excess urushi was completely wiped off from the surface with ligroin before it had hardened. This work was repeated twice for parts coated

with black urushi. Similar work was done once on vermilion urushi-coated parts using Japanese *sugrome urushi*.

7. Parts of the bottom board which had been damaged by insects were treated by impregnating diluted Japanese raw urushi into the exposed substrate in order to reinforce the substrate. Then the hollows and missing parts were filled with *kokuso* to reproduce the shape (Fig. 25). For large missing parts, filling with *kokuso* was started by first using *kokuso* with coarse sawdust and gradually changing to one with a finer grade to finish the shape. Filling with *kokuso* was limited only to those parts that had been damaged by insects, and no large-scale reproduction of the shape was made in this way.
8. The exposed substrate on the area around the vermilion belt-like decoration on the shoulder and the parts on the rim that had been damaged by insects were reinforced by applying sufficient amount of diluted Japanese raw urushi. The shape was then reproduced by filling with *kokuso* (Fig. 26-28).
9. After the *kokuso* that had been used to fill the damaged parts had hardened sufficiently, the surface of the *kokuso* was grinded with a grinder and Japanese raw urushi was applied to match this area to its surroundings (Fig. 29).
10. A support was made to create a more stable base because the bottom of the jar at the time of restoration was not even. The support had to be one into which the bottom of the jar would fit. Since there is an inscription on the bottom board, it was decided that the support should not be hard in case it abraded the inscription and that it should be inconspicuous when the object is exhibited. For this reason, fine textured black synthetic cloth was used over a wooden core (Fig. 31).
11. A paulownia box was manufactured to store the jar. A *kendon*-style door* was used and a sliding board was incorporated on the bottom to minimize handling. The object would be placed on top of this board. An extra board was made so that when the sliding board is pulled out there would not be a difference in level between the table board and the paulownia box. Using this extra board would enable safe handling of the object (Fig. 30).
12. Photographs were taken of the object after restoration (4x5, color slides) (Figs. 32-37).
13. Reproductions of the drawings of the monkeys on the body (Figs. 46-49) were made and micrographs (x 20) were taken of the surface of the coating film (Figs. 38-43). These will be kept as records.
14. The object was transported from the restoration studio at the Nara National Museum to the Institute on a special truck for the movement of art objects.

*The door sits within a rebate in the frame and can be removed by lifting it upwards into a recess which is slightly deeper than the one at the bottom, then pulling it outwards with the aid of a fabric or built-in handle (see the illustration on p. 157).

Comparison with Similar Oil Jars

	Frolicking Monkeys	Todaiji Oil Jar (A)	Todaiji Oil Jar (B)
Dimensions	Diameter of the body 47.2cm Height 49.4cm	Diameter of the body 40.4cm Height 43.7cm	Diameter of the body 39.2cm Height 57.2cm
Structure of the substrate, etc.	<i>Yokogidori</i> Cut into four <i>Nunokise</i>	<i>Yokogidori</i> Cut into three at the neck, shoulder and near the base <i>Nunokise</i>	<i>Yokogidori</i> Cut vertically into two <i>Nunokise</i>
Method of shape formation	Turning wheel (inside and outside)	Turning wheel (inside and outside)	Inside, scooped out Outside, turning wheel
Shape of the body	Flatter, more angular shoulder	Gently sloping shoulder	Gently sloping shoulder
Shape near the base	Tapers gently towards the base	A circular board attached to the base	Tapers towards the base with a small section turned outwards
Legs	No longer existing Metal fittings at 4 points of the body	No longer existing Traces of 4 legs on the body	4 legs attached to the body
Number of belt-like decoration, design, etc. on the vermilion part	3 sets of 4 lines on the body 4 carved lines per belt Vermilion urushi drawings of frolicking monkeys on the bottom section	4 sets of 4 lines on the body 4 carved lines per belt	4 sets of 3 lines on the body 3 carved lines per belt Traces of 3 belts can be seen on a place different from the vermilion belt found today
Inscriptions, etc	正あん四ねん in Chinese ink on the bottom	東大寺、油倉之、常住物、元徳貳 in vermilion urushi on the body	東大寺、油倉之、常住物、元徳貳 in vermilion urushi on the body

Technical Terms

Nunokise 布着せ

The process in which hemp cloth is fixed on the surface of the wooden substrate with *norī urushi*. It is done between *kijigatame* and *ji-tsuke* in order to reinforce the wooden substrate and to provide a flat surface.

Mugi-urushi 麦漆

An adhesive made by mixing raw urushi into wheat flour that has been kneaded with water into a dough. Because it is strongly adhesive, it has been used in the manufacture of *kanshitsu* Buddha statues since the 8th century. Today it is used as an adhesive in treating damaged objects, in addition to being used as an adhesive for wood.

Kokuso 刻苧

Urushi filler made by kneading sawdust and hemp fibers into *mugi-urushi*. It is used as shape forming material, to treat cracks on substrates and to reproduce missing parts.

Sabi 錆

Fine urushi foundation material used for the final ground layer. Raw urushi is added to *tonoko* which has been mixed with water into a paste. *Sabi* is applied on the surface with a spatula or a brush.

Sugurome urushi 素黒目漆

Raw urushi from which moisture has been removed.