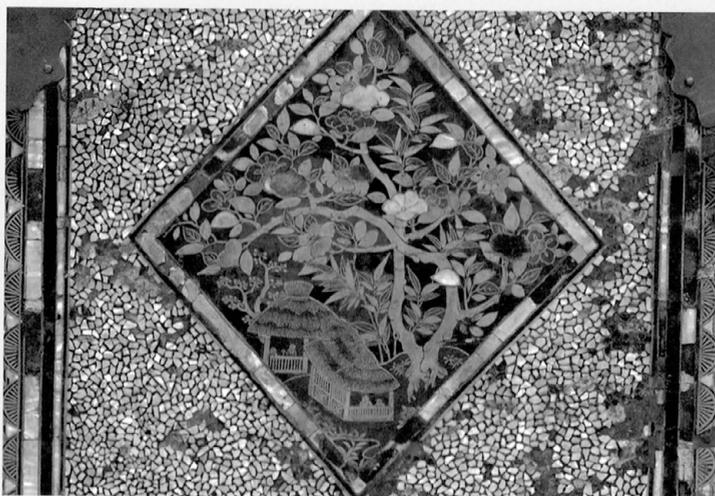

花樹鳥獸蒔絵螺鈿洋櫃

平成 18 年度修復事業



品名：花樹鳥獸蒔絵螺鈿洋櫃
所蔵：ケルン東洋美術館

ケルン東洋美術館蔵

花樹鳥獸蒔絵螺鈿洋櫃

松本達弥

1. 概要

資料名称：花樹鳥獸蒔絵螺鈿洋櫃
 所 蔵：ケルン東洋美術館（ドイツ）
 時 代：17世紀 江戸時代
 法 量：横 117.0cm 奥行 47.5cm 高さ 57.5cm
 修復者：松本達弥 北村 繁
 修復場所：ドイツ・ケルン東洋美術館 修復アトリエ内
 修復期間：1ヶ月

2. 形状・技法

木製漆塗り、半円筒形の蓋の付いた洋櫃で、正面に錠金具、背面に蝶番、両側面に提環、各角には角金具を付ける。(図1)

全ての面に窓枠を設け、正面、両側面には紅葉、橘、椿、桐、桔梗などの樹木や草花文、鹿、蝶、鳥、獅子などの鳥獸文が付く。(図2~4) 背面には葛、朝顔の文様、蓋内部には桜、柳に3羽の鳥が描かれている。(図5.6) 窓枠の仕切りには片輪車繫文、周りには七宝繫文を廻らす。

金具は一部を除き全て銅製の無地、表面に金鍍金は確認できない。左右側面の提環止めと身の内部側面の釘隠しには菊文様の金具が付く。(図7.8) 提環と釘隠しを除き全て後補のものである。

蒔絵技法は、金の平蒔絵と銀の平蒔絵に透漆を塗った表現と、一部の花、果実及び七宝、片輪車繫文には鮑貝の中厚貝が使われている。全ての文様には金の平蒔絵の付描が付く。

3. 損傷状態

全体

- ・洋櫃の表面塗膜は全体に艶が無く、後補によるヨーロッパ製の塗料が塗られ全体に黒ずんで見える。また、塗られた塗料が劣化し白濁化している。
- ・錠金具、提環、角金具及び銅釘は、全てヨーロッパでの作り替えである。

正面

- ・蓋の正面中央のみじん貝は、剥離剥落が多く目立つ。一部後世に張り戻された部分があり、接着剤が溢れ貝も乱雑に置かれている為、非常に見苦しい状態である。(図9)
- ・蓋の正面、貝の剥落部分に、後補による白下地に銀色の塗料が塗られ、その塗料が劣化し断文が生じている。(図10)
- ・蓋の甲板部分、菱形枠内には後補で塗られた塗料の影響で、塗膜が黒ずんで蒔絵が見え難い状態である。(図11)
- ・蓋の正面左側の角金具周辺は、漆塗膜や貝の剥落が多くあり木地が露出している。(図12)

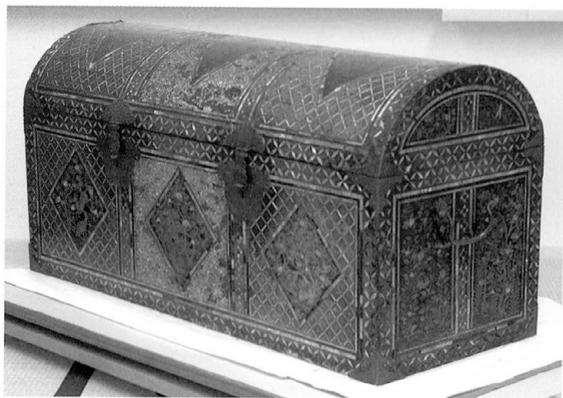


图1 修復前 全景
Fig. 1 Before restoration, overview

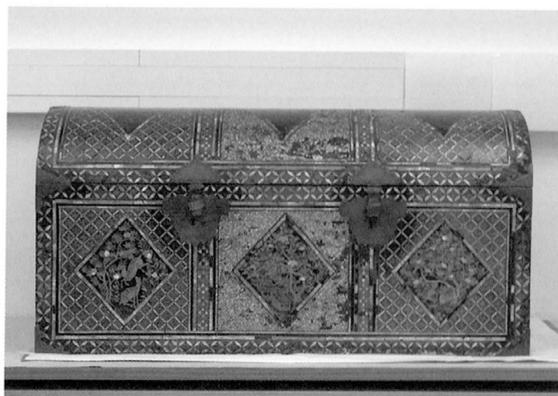


图2 修復前 正面
Fig. 2 Before restoration, front

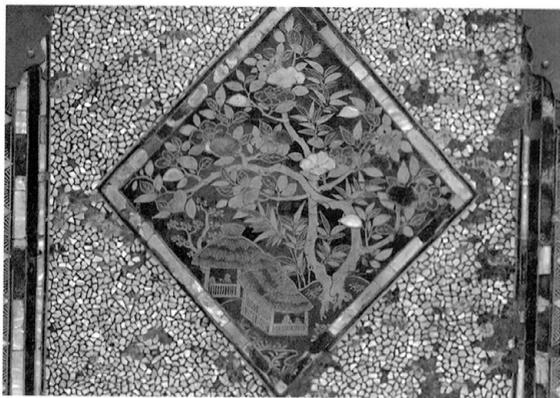


图3 修復前 正面 中央部分
Fig. 3 Before restoration, front center

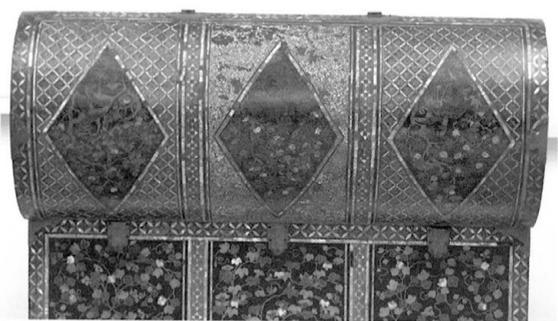


图4 修復前 蓋甲板
Fig. 4 Before restoration, top of the lid

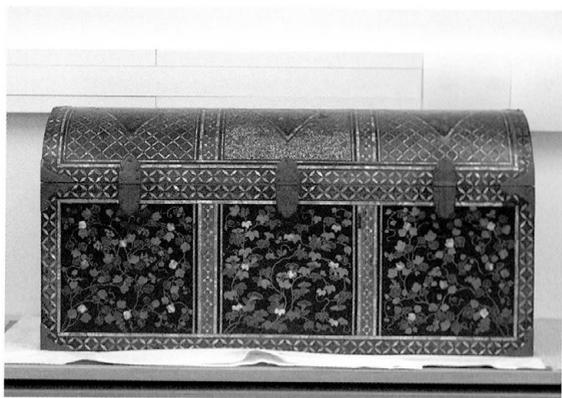


图5 修復前 背面
Fig. 5 Before restoration, back



图6 修復前 蓋内侧
Fig. 6 Before restoration, inner side of the lid

- ・身の正面、中央及び左側の表面塗膜は、後補で塗られた塗料の劣化により白濁化している。(図13)
- ・身の正面下の塗膜や貝は剥離剥落が多く、剥落した塗膜が下に落ちている。
- ・正面右下の角金具の銅釘が3本紛失している。

右側面

- ・側面の表面塗膜には、塗られた塗料の影響で全体に黒ずみ、特に提環周辺の塗膜は状態が悪い。
- ・蓋の角部分の塗膜及び貝は剥離剥落が多く、貝の剥落した部分には銀色の塗料で塗られている。
- ・身の側面下には木地の接合部に亀裂があり、その周辺塗膜は剥離剥落が多くある。

左側面

- ・表面塗膜は、何層も塗られた塗料の影響で蒔絵の金色が黒味を帯びている。
- ・塗膜及び貝は剥離剥落が多く目立ち、対面の右側面より状態が悪く、触れるだけで剥落しそうな危険な状態である。(図14)
- ・側面下の塗膜は殆ど剥離し、木地接合部には亀裂を生じている。

背面

- ・蓋部分には、塗膜及び貝の剥落が多くあり、一部ヨーロッパ製塗料で修復されている。
- ・蓋の両端部分の塗膜は剥離剥落が多くあり状態は悪い。
- ・身の左側には、木地の接合部に亀裂がある。
- ・右側の蝶番の銅釘3本が紛失している。

蓋内側

- ・内側には、木地の接合部と思われる箇所に2本の亀裂を生じている。
- ・左右側面に打損による塗膜の損傷がある。
- ・蓋表の錠金具の付け替え時に生じた、釘による塗膜の損傷がある。
- ・内角の表面塗膜にカビによると思われる汚れがある。

身内側

- ・内側の表面塗膜は全てヨーロッパ製塗料の塗り直しである。
- ・内部には、剥落した塗膜や貝片、そして埃が溜まっている。

4. 修復仕様

日本の漆芸品の修復は、歴史的に見ると様々な方針や技法で行われてきた。現在、日本の文化庁が実施している修復方針は、「今ある文化財を、現状を損なうことなく保存し、永く後世に伝える」という事である。この修復方針に則り「洋櫃」の修復は、現状保持修復を基本に行う事とする。先ず、洋櫃修復の全工程を列記した後、今年度に行った修復工程を記す。

5. 修復作業工程

<調査及び作業工程確認>

洋櫃の構造、下地、加飾と現状の傷みを調査記録し修復作業工程を確認する。

<修復前の記録写真>

修復前と修復後の比較ができるよう写真撮影を行う。

<修復品設置台及び芯張り用木枠の制作>

修復品を損傷なく安全に修復作業を進められるよう設置台と、剥離した塗膜や貝の圧着に使用する芯張り用木枠を制作する。

<仮止め養生>

洋櫃の表面塗膜や蝶紐は、作業中剥落しそうな危険な状態にあるため、細かく切った雁皮紙を糊



図7 修復前 右側面 全景
Fig. 7 Before restoration, right side



図8 修復前 左側面 上部
Fig. 8 Before restoration, upper left side



図9 正面 甲板 みじん貝損傷部分
Fig. 9 Front, top of the lid, damaged *mijingai*



図10 正面 甲板 貝剥落部分の後補
Fig. 10 Front, top of the lid, later additions to area where the shell pieces had become detached



図11 正面 甲板 塗膜表面に塗布された後補塗料
Fig. 11 Front, top of the lid, coating material applied to the surface of the coating film in the past



図12 角金具周辺の損傷部分
Fig. 12 Damaged area around the corner metal fitting

貼りし塗膜の剥落防止を行う。

<クリーニング及び後補塗料の除去>

クリーニングは洋櫃の表面を覆っている埃を取り、僅かに水分を含ませた木綿布にて汚れを除去する。また、ヨーロッパでの修復の際に塗った塗料が劣化し塗膜表面が白濁化しているため、蒸留水とアルコールを使ってクリーニング除去を行う。この際、剥離した塗膜や貝に損傷を与えないよう充分注意し、クリーニングは必要最小限にとどめる。

<後補の除去>

ヨーロッパでの修復の際、塗膜の欠失や亀裂部分に充填された後補剤を除去する。なお、除去は損傷を挙げたり、オリジナルに損傷を与えてしまう恐れのある部分は必要最小限にとどめる。

<漆塗膜の漆固め>

後補塗料の除去を行った塗膜表面には、経年劣化により艶のない状態であったため、ヨーロッパ製の塗料が塗られていたと思われ、表面塗膜の強化と今後の作業中の染みを作らないために溶剤で希釈した漆で固め作業を行う。

<亀裂部分の圧着>

亀裂部分の圧着は、麦漆を使い端金と芯張りによる圧着とする。

<塗膜及び螺鈿の圧着>

剥離した塗膜の接着は麦漆を使用し、クランプや竹ひごの弾力を利用した芯張りによる圧着とする。剥離した螺鈿の接着は膠を使用する。

<刻苧の充填>

亀裂部分の戻しきれない隙間や塗膜の欠損部分には、麦漆に木粉や麻の繊維を混入した刻苧を充填し形態を復元する。なお、洋櫃の時代性や周辺塗膜の損傷に合わせ、刻苧の充填は必要最小限にとどめる。

<際錆及び漆固め>

接着した塗膜や刻苧で充填した亀裂部分に、漆下地を施し再剥落を防止する。際錆を行った部分には漆を数回吸わせて固めとする。

<塗膜表面の漆固め>

塗膜の強化と表面の艶を取り戻すために、溶剤で希釈した漆を数回吸わせ漆固めを行う。

<銅釘の復元>

洋櫃には、6本の銅釘が紛失しているため、現在入手できる銅釘で形状復元し設置する。

<記録写真及び報告書作成>

修復及び技術分析の記録をまとめ、修復後の写真撮影を行う。

6. 今年度の修復作業工程

<海外修復作業のための国内準備>

海外（ドイツ）での修復作業を遂行するうえで、日本国内で調達した修復材料及び作業道具類を、現地に輸送する為の準備作業を行った。作業は、道具や材料の仕分け作業を行い、輸送リスト作成や荷物の梱包などの作業に2日間要した。

<アトリエ内の整備>

今年度は海外での初めての修復作業である為、先ずアトリエ内の整備を行い、日本から持込ができなかった材料、道具の調達をしたうえで修復作業に取り掛かった。(図15.16)

<調査及び作業工程の確認>

洋櫃の構造、下地、加飾技法などの調査を行い、現状の傷みを記録し今後の修復作業工程を確認

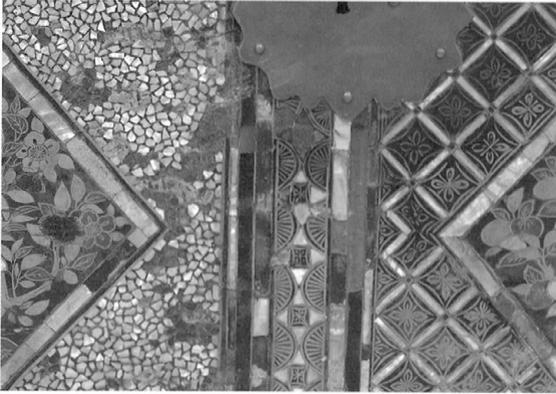


図13 正面中央 貝の剥離剥落及び後補塗料の白濁化
Fig. 13 Front center, places where the shell pieces had become lifted or detached and places where the coating material applied in the past had become opaque



図14 右側面 漆塗膜の剥離
Fig. 14 Right side, lifting of the urushi coating film



図15 ケルン東洋美術館内 修復アトリエ
Fig. 15 Restoration Studio of Museum für Ostasiatische Kunst Köln

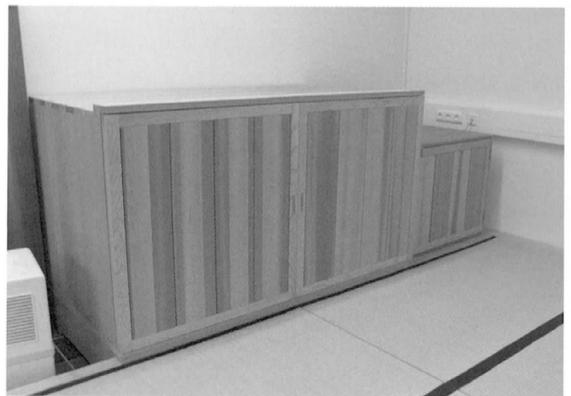


図16 修復アトリエ内 修復品保管用 漆風呂
Fig. 16 Inside the Restoration Studio, storage box and *urushi* humidifying chamber



図17 修復作業台及び漆風呂内部
Fig. 17 Working table and the inside of the *urushi* humidifying chamber



図18 仮止め養生作業
Fig. 18 Temporary facing

した。

<修復前の記録写真撮影>

修復前と修復後の比較ができるよう写真撮影を行った。

<修復品設置台及び芯張り台の制作>

修復品を損傷なく安全に修復作業を進められるよう設置台とキャスター付き移動台を制作した。また、剥離した漆塗膜や貝の圧着作業に使用する芯張り用木枠も制作した。(図 17)

<仮止め養生>

洋櫃は長年乾燥した場所に置かれていたと思われ、表面塗膜や貝は剥離剥落が激しく、作業中に剥落しそうな危険な状態であった。剥落防止として、細かく切った雁皮紙を糊張りし塗膜や貝の安定をはかった。(図 18~20)

<クリーニング(埃の除去)>

洋櫃の表面を覆っている埃を毛棒で集め、僅かに水分を含ませた木綿布にて埃を除去した。この際、剥離した塗膜や貝に損傷を与えないよう充分注意し作業を行った。

尚、クリーニングは必要最小限にとどめた。

<損傷部分の拡大写真撮影>

後補塗料の除去テストをする前に、肉眼では目視できない塗膜の損傷部分の状態を確認するため、拡大写真撮影を行った。撮影機材は、デジタルカメラに50倍のマイクロメータースコープを取り付けたものを使用した。

撮影した画像からは、表面塗膜に塗布された後補塗料が白濁化した様子、漆塗膜が劣化しクラックが入った様子など、肉眼では見えない状態が確認できた。(図 21. 22)

<後補塗料の除去>

洋櫃の塗膜表面には、ヨーロッパでの修復の際に塗られた塗料が全体を覆い、表面塗膜は黒ずみ、部分的に劣化し白濁化しているため除去する必要がある。ただし、今年度の作業は、後補塗料の除去に使用する溶剤をテストし、来年度から行う作業の参考にした。

塗料除去には蒸留水と弱い溶剤数種類を用いテストを行った。結果、劣化した漆塗膜や加飾の蒔絵部分などの影響を考慮し、先ず無水エタノールに50%の蒸留水を混合した溶剤を塗料に塗布し、塗料を軟化させてから無水エタノールで拭き取り除去する方法で行う事にした。(図 23. 24)

<作業終了の記録写真撮影>

今年度に行う修復作業工程を終え、記録写真の撮影を行った。



図 19 剥離した部分に雁皮を糊張り養生
Fig. 19 Facing the lifted parts by pasting strips of *gampi* paper

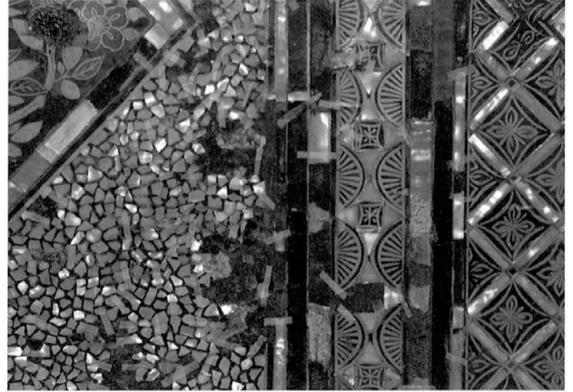


図 20 養生された貝や漆塗膜
Fig. 20 Shell pieces and urushi coating film that have been faced



図 21 身正面 白濁化した後補塗料
Fig. 21 Body, front, coating material applied in the past that had become opaque

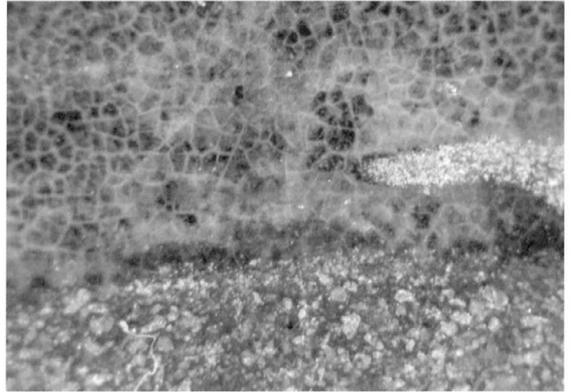


図 22 身正面 白濁化した後補塗料の拡大画像 (50 倍)
Fig. 22 Body, front, enlarged image of the coating material applied in the past that had become opaque (x50)



図 23 左側面 後補塗料の除去テスト部分
Fig. 23 Left side, part tested for the removal of the coating material applied in the past

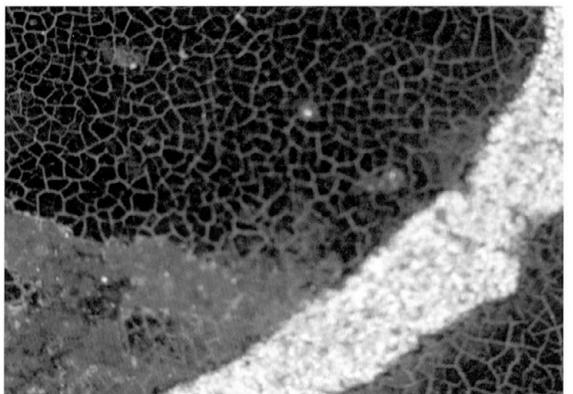


図 24 左側面 後補塗料の除去テスト部分拡大画像 (50 倍) 後補塗料を除去した部分から劣化した漆塗膜が現れた
Fig. 24 Left side, enlarged image of the part tested for the removal of the coating material applied in the past (x50)
Deteriorated urushi coating film appeared from the part where the coating material applied in the past was removed.

On the Restoration of
Ornamental Coffers with Flower and Bird Design in Makie and Raden Techniques
 in the Collection of Museum für Ostasiatische Kunst Köln

Tatsuya Matsumoto

1. Outline

Name of the object : *Ornamental Coffers with Flower and Bird Design in Makie and Raden Techniques*
 Collection : Museum für Ostasiatische Kunst Köln
 Period of manufacture : Edo period, 17th century
 Dimensions (cm) : Width 117.0 Depth 47.5 Height 57.5
 Restorers in charge : Tatsuya Matsumoto and Shigeru Kitamura
 Place of restoration : Restoration Studio, Museum für Ostasiatische Kunst Köln
 Duration of restoration : 1 month

2. Description and techniques used

The Coffer is made of wood and coated with urushi. It has a semi-cylindrical lid. There is a metal lock in the front, hinges at the back, handles on both sides and metal fittings on each corner (Fig. 1).

There are cartouches on all the sides. On the front and side cartouches are motifs of trees and flowers like maple, orange, camellia, and Chinese bellflower as well as those of birds and animals like deer, butterflies, birds and Chinese style lions (Figs. 2 – 4). On the back are designs of arrowroot and morning glory; on the inner side of the lid is a design of three birds on a cherry tree and a willow (Figs. 5, 6). A consecutive half-wheel pattern is used to partition the cartouches, while an interlinking circle pattern surrounds the cartouches.

With the exception of some, the metal fittings are all made of copper with no designs on the surface. Gold gilding is not observed on the surface. A chrysanthemum motif is used on the metal fitting that protects the part where the handle comes in contact with the Coffer and the nail cover on the inner side of the body (Figs. 7, 8). All the metal fittings except the handles and nail covers are later additions.

Gold *hiramakie* and silver *hiramakie* covered with translucent urushi are used. On some of the flowers and fruits as well as on the patterns of interlinking circles and consecutive half-wheels, abalone shell pieces of medium thickness are used. All the designs have *tsukegaki*.

3. Condition of damage

Overall

- The surface coating film of the Coffer has lost its luster. The Coffer looks dark due to the application of European coating material in the past. In addition, this coating material has deteriorated and has become opaque.
- The metal lock, handles, corner metal fittings and copper nails have all been made and replaced in Europe.

Front

- The minute shell pieces (*mijingai*) on the center front of the lid have become significantly lifted or lost. Some have been reattached in the past but the adhesive material has seeped out and the shells placed in a very disorderly way so that the overall impression is that of unsightliness (Fig. 9).
- Silver coating material is found over a white foundation applied in the past on the front face of the lid where the shells have fallen. There are microcracks on this coating material (Fig. 10).
- The *makie* inside the rhombus-shaped cartouche on the top of the lid is difficult to see because the coating film that had been applied in the past has become dark (Fig. 11).
- The urushi coating film and the shell pieces around the metal fitting on the front left corner of the lid are missing, exposing the wooden substrate (Fig. 12).
- The coating film on the surface of the front center of the body and the left side have become opaque due to the deterioration of the coating material that was applied in the past (Fig. 13).
- Much of the coating film and shell pieces on the front lower portion of the body have become lifted or lost. These were found on the table on which the Coffers was placed.
- Three of the copper nails have been lost from the front lower right corner metal fitting.

Right side

- The coating film on the surface of the side has become dark due to the influence of the coated material. The coating film around the handle is especially in a poor condition.
- There is much lifting and loss of the coating film and the shell pieces around the corner of the lid. Parts where the shell pieces have been lost are coated with silver coating material.
- There are cracks on the joints of the wooden substrate at the bottom of the side of the body. There is much lifting and loss of coating film around this area.

Left side

- The gold color of the *makie* has become dark because several layers of coating film had been applied.
- There is much lifting and loss of the coating film and shell pieces. The condition on the left side is worse than that on the right so that even a slight touch might cause them to become detached (Fig. 14).
- The coating film on the lower portion of the left side has become lifted, and there are cracks on the joints of the wooden substrate.

Back

- There is much loss of coating film and shell pieces on the lid and some of these have been restored with European coating material.
- The coating film at both ends of the lid has become lifted or lost so that its condition is not good.
- There are cracks on the joint of the substrate at the left.
- Three of the copper nails on the right hinge are missing.

Inner side of the lid

- There are two cracks on what appears to be the joint of the wooden substrate.
- The coating film on the left and right sides have become damaged when something hit the object.
- The coating film has been damaged by nails when the metal lock on the lid was exchanged.
- There are stains on the inner corners believed to have been made by fungi on the coating film.

Inner side of the body

- All the surface coating film on the inner side of the body is European and was recoated.
- Coating film and shell pieces that have become detached and dust were found on the inside of the body.

4. Restoration specifications

When viewed historically, the restoration of Japanese urushi objects has been executed according to diverse policies and by using various techniques. Today, the policy concerning restoration executed under the Agency for Cultural Affairs is “to conserve cultural properties without damaging the present condition so that they may be transmitted to later generations.” In accordance with this policy, the Coffers will be restored basically to maintain its present condition.

Below is an explanation of the entire process for the restoration of the Coffers. It is followed by a report of the restoration process conducted during this fiscal year.

5. Process of restoration

- Investigation and confirmation of the working procedures
The structure of the Coffers, its foundation, decoration and the present condition of damage will be investigated and the working procedures confirmed.
- Photographing before restoration
Photographs will be taken so that the Coffers before and after restoration may be compared.
- Manufacture of the working table and *shimbari* frame
A working table that will enable restoration to be conducted safely without causing damage to the object and a frame to be used when press stabilizing lifted coating film and shell pieces with *shimbari* sticks will be made.
- Temporary facing
Since the surface coating film and *raden* of the Coffers are in a very serious condition and may become detached during restoration, thin strips of *gampi* paper will be used to prevent their loss.
- Cleaning and removal of the coating material applied in the past
Dust covering the surface of the Coffers will be removed and stains will be wiped off with a slightly moistened cotton cloth. Since the coating material applied during restoration in Europe has deteriorated, making the surface of the film opaque, this will be removed by using distilled water and alcohol. Care will be taken, at this time, not to damage the lifted coating film and shell pieces. Cleaning will be kept at a minimum.
- Removal of later additions
Fillers applied during restorations in Europe to cracks and areas with missing coating film will be removed.
Since it is feared that removal may enlarge the damage or damage the original, this procedure will be kept at a minimum.
- Consolidation of the coating film (*urushigatame*)
After removing the coating material that was applied in the past, the surface of the coating film will be reinforced by using urushi diluted with a solvent. This will also prevent staining during work.
- Press stabilizing the cracks
In order to press stabilize the cracks, *mugiurushi* will be used. Clamps and *shimbari* will be used for this purpose.
- Press stabilizing the coating film and *raden*
Mugiurushi will be used as adhesive to adhere lifted coating film, using the *shimbari* technique employing clamps and the resiliency of bamboo sticks. Animal glue will be used to adhere lifted *raden*

shell pieces.

- Infilling *kokuso*

Kokuso, a mixture of *mugiurushi* with sawdust and hemp fibers, will be used to fill gaps of cracks that cannot be returned to their positions and parts where the coating film is missing. Infilling *kokuso* will be kept at a minimum in order to maintain the overall atmosphere created by the passage of time and to match the infilled area with the damaged coating film around it.

- *Kiwasabi* and *urushigatame*

Urushi foundation will be applied to the edges of adhered coating film and the cracks that have been filled with *kokuso* in order to prevent further loss. Urushi will be applied several times to consolidate parts where *kiwasabi* is executed.

- *Urushigatame* of the surface coating film

In order to reinforce the coating film and to bring back luster to the surface, urushi diluted with a solvent will be applied several times for consolidation.

- Reproduction of the copper nails

Since six of the copper nails are missing, nails available now will be used to reproduce nails similar to the original in color and shape.

- Photographing and making a report

A report will be made of the restoration and technical analysis; photographs of the Coffer after restoration will be taken.

6. Restoration procedures for this fiscal year

- Preparation in Japan for restoration to be done overseas

Preparations were made in order to transport restoration materials and tools, which had been collected in Japan, to Germany where the actual restoration work was conducted. It took two days to sort out the tools and materials, to make a list of items and to pack them.

- Preparation of the restoration studio

Since this year was the first year working overseas, the restoration studio was checked and prepared. Materials and tools that could not be brought from Japan were procured before starting restoration work (Figs. 15, 16).

- Investigation and confirmation of the working procedures

The structure of the Coffer, its foundation and decoration were investigated, the present condition of damage was recorded, and future restoration procedures were confirmed.

- Photographing of the Coffer before restoration

Photographs were taken so that comparison may be made of the Coffer before and after restoration.

- Manufacture of a working table and *shimbari* frame

A working table and another table with wheels were made so that restoration work might proceed safely without causing further damage to the object. *Shimbari* frame was also made to be used in press stabilizing the lifted urushi coating film and shell pieces (Fig. 17).

- Temporary facing

It is believed that the Coffer had been placed for a long time in a dry place. For this reason, there was severe lifting and loss of the surface coating film and shell pieces and a risk of their becoming detached during restoration. In order to prevent this, small pieces of *gampi* paper were attached with

paste (Figs. 18 – 20).

- Cleaning (removal of dust)

A brush was used to gather the dust covering the surface of the Coffe; then a slightly moistened cotton cloth was used to remove the dust. At this time, care was taken so as not to damage the lifted coating film and shell pieces. Cleaning was kept at a minimum.

- Taking enlarged photographs of the damaged parts

Before doing tests for the removal of coating material applied in the past, enlarged photographs were taken to check the condition of damage of the coating film that could not be observed with the naked eye. A x50 micrometer scope was attached to a digital camera.

Photographs showed conditions that could not have been observed with the naked eye: the coating material applied to the surface coating film at a later date had become opaque and the urushi coating film had deteriorated, causing cracks to appear (Figs. 21, 22).

- Removal of the coating material applied in the past

The entire surface coating film of the Coffe was covered with a coating material that had been applied during restoration in Europe. Since the surface coating film had darkened and partially deteriorated, causing it to become opaque, it was necessary to remove this coating material. However, for this year the work of removing the coating film that had been applied in the past was limited to experimenting with solvents that could be used to remove the deteriorated coating film. The actual work of removal will be done during the next fiscal year.

Several kinds of tests were made for possible removal of the coating material – from using distilled water only to using several kinds of weak solvents. As a result it was decided that absolute ethanol mixed with 50% distilled water will be applied to the coating material, taking into consideration the impact on the damaged urushi coating film and the *makie* decorations. Then after the coating material becomes soft, it will be wiped off with absolute ethanol (Figs. 23, 24).

- Photographing at the completion of this year's work

Restoration procedures scheduled for this year was completed and photographs were taken.

花樹鳥獸蒔絵螺鈿洋櫃 (ケルン東洋美術館)

Ornamental Coffin with Flower and Bird Design in Makie and Raden Techniques
(Museum für Ostasiatische Kunst Köln)



修復前 全景

Before restoration, overview



仮止め養生作業

Temporary facing