
花円文虫蒔絵月琴

平成 19 年度修復事業



所蔵：ウィーン国立民族学博物館

ウィーン国立民族学博物館

花円文虫蒔絵月琴

北村 繁

1. 概要

名 称：花円文虫蒔絵月琴
 所 蔵：ウィーン国立民族学博物館（オーストリア）
 時 代：19世紀 江戸～明治時代
 法 量：長さ 55.5cm 胴幅 31.4cm 高さ 6.7cm
 修復期間：平成 19 年 10 月（1ヶ月）

2. 形状・技法

胴と棹は桐材。胴表面板は白木の仕上げで、胴の側面から背面にかけて膠下地に黒漆を塗り、僅かに高上げた金、銀の平蒔絵で文様を表わす。胴側面には、蝶・蛾・蜻蛉・蜂・飛蝗・蟋蟀・蝸牛・甲虫などの昆虫を描き、背面には萩・梅・菖蒲・水仙・紅葉の花円文を表わす。半月と蓮頭は鉄刀木材で半月には龍、蓮頭には鳳凰の彫りが施されている。絃を巻く軸は黒檀材と思われる。面板には草花文の玉飾りが二つ取り付けられている。絃停（面板に貼られた、いわゆるピックガード）は緑色に染め和紙で裏打ちをしたものを貼り付ける。材質は不明（通常はニシキヘビの皮や錦等を用いる事が多い）。撥 1 枚付属。

※火山の調査のために来日したウォルティンベルク氏が、1877 年に寄贈したものの一つ。氏は他に甲冑など様々なものを日本から持ち帰って寄贈している。

3. 損傷状態

- ・ 胴側面塗膜の所々に亀裂が見られ、漆塗膜が木地から浮き上がって破損していた。この亀裂は木地の収縮とそれに伴う木地接合部のずれなどによる漆塗膜へのストレスから生じたものと考えられる。
- ・ 棹の接合部横に漆塗膜の欠損があって木地が露出しており、その部分は黒色に塗られていた。欠損部に面した漆塗膜は二方向に亀裂が生じて浮き上がっていた。
- ・ 胴側面から裏面にかけての角部分は漆塗膜の小さな剥落・欠損が多く見られた。
- ・ 棹の取り付けが緩んで抜ける状態になっていた。棹が不安定なため、胴側面に開けられた棹先を挿し込んだホゾ穴周辺の漆塗膜が破損し、下地と接合部が露出していた。
- ・ 胴側面の漆塗り表面には後補で薄くヨーロッパ製の塗料が塗られており、指紋が付着していた。
- ・ 胴裏面の漆塗り及び蒔絵の上にはほとんど塗料等も塗られておらず漆本来の光沢もあり、安定した状態であった。
- ・ 面板に嵌められた玉飾りの一部に欠失があり、後補の玉が補われていた。
- ・ 絃停は本体との接着面が外れて浮き上がっていた。
- ・ 本体に張られた絃は緩んでおり、一本は軸から外れていた。

4. 修復

今回の修復では、国指定文化財の修復に適用される現状保持修復の原則に基づいて行った。

1. 修復方針としては基本的に一ヶ月の施工期間内で可能な修復を行う事とした。
2. 修復施工箇所は基本的に漆塗りが施された部分のみとした。
3. 修復に先立ち、修復前の全体と破損部など細部の写真撮影を行った。
4. 浮き上がって剥落の恐れがある漆塗膜周辺に小さく切った雁皮紙を薄めた澱粉糊で貼り、作業中に引っかかって破損を広げることがないように養生した。
5. 胴の面板や棹など白木地で仕上げられている部分は乾いた筆や綿棒を用いてクリーニングを行った。その際に面板に書かれている所蔵番号や名称、手擦れによる自然な汚れなどは所蔵者の希望により現状のままとし、全体の風合いを損なわないように心がけた。
6. 面板に貼られた緑色の絃停は現段階で膠などを用いて応急的に接着するよりも現状のままで保管し、完全に剥がれた時点で素材や接着剤の調査を行った上で接着しなおすのが適切と考え、今回は特に処置は施さずに現状のままとした。
7. 面板に取り付けられた玉の飾りで後世修復の時に補われた部分は現状のままとした。また、修復作業期間中にもう一方の玉飾りが外れた。接着面を目視によって観察したところ、ソクイ(飯粒を潰して練ったもの)で接着されているようであった。接着面に付いた接着剤は僅かに湿り気を与えて膨潤させてから竹筥を用いて除去し、接着面を整えた後、ソクイで再び元の位置に接着しなおした。
8. 胴側面の漆塗膜表面に塗られた塗料と付着した指紋は蒸留水を用いて可能な範囲でクリーニングを行った。今回、側面に塗られていたシェラックと思われる塗料は水分で溶けるため、素手で塗料表面に触れると容易に指紋が付く状態である。よって、今後の取り扱いについても、漆塗り面を素手で触る事を極力避ける必要がある。
9. 胴側面の漆塗膜の亀裂と浮き上がりは漆塗膜の接着力低下によって生じたものでなく、木地の収縮からくるストレスによって生じたものであり、現状では元の状態に圧着するのは困難であった。仮に強制的に圧着したとしても他の場所にストレスが掛かり、新たな亀裂が生じる事が予測された。従って、塗膜を完全に圧着することが不可能な塗膜の浮き上がりについては現状のままとし、木屎、錆漆によって塗膜浮き上がり部分の閉口処置を行い、引っかかって新たな塗膜の破損が生じるのを防いだ。仕上げの錆肌は摺り漆を数回行って艶と色調を整え、周囲と調和するように仕上げた。
 なお、塗膜が浮き上がって空洞状になっている部分は、膠や麦漆などを充填してしまうと、今後の修復でその塗膜を接着する必要性が生じた時に、それらの充填物を除去する事が不可能で塗膜の接着に支障をきたす恐れがあるので、今回は空洞部の充填補強は行わなかった。
10. 胴側面の棹接合部横の漆塗膜欠損部は木屎で形状を補い、黒色に調合した錆漆で際錆を施して整えた。オリジナルの塗膜面を傷めないようにするため仕上げの錆肌は漆塗り面よりも僅かに低くし、摺り漆を重ねて艶と色調を整えて周囲と調和するように仕上げた。
11. 棹接合部横の塗膜欠損部から二方向に亀裂が延びて浮き上がった漆塗膜については、現状のままでは亀裂が蒔絵部にまで広がる恐れがあった。そのため、重なり合った漆塗膜の部分のみを僅かに削り、芯張りを用いて可能な範囲で浮き上がった漆塗膜に緩く加圧しながら漆塗膜の亀裂を麦漆で繋いで接着し、破損が広がるのを防止した。塗膜の接着部は色調を合わせた錆で際錆を施して仕上げた。
12. 胴との接合部が外れて抜ける棹は、胴と棹の接合面に隙間が生じているため膠による接着が困難

であると判断した。従って、木粉と麻繊維を混入した麦漆を用いて白木の木質部に付着しないように注意しながら隙間の充填と接着を行った。胴側面の棹先が差し込まれたホゾ穴周辺の漆塗膜欠損部分は、ホゾとホゾ穴を麦漆で接着した後、塗膜欠損部は木屑で形状を整え、黒色に調合した錆漆で際錆を施して表面を整えた。錆肌は摺り漆を重ねて艶と色調を整えて周囲と調和するように仕上げた。

13. 胴側面から裏面にかかる角に生じた漆塗膜の欠損部は木地露出部分に生上味漆を浸透させて乾かした後、黒色に調合した錆漆で形状を整え、摺り漆を重ねて艶と色調を整えて周囲と調和するように仕上げた。
14. 外れた絃は所定の軸に緩く巻き上げて固定した。
15. 修復の経過を写真撮影して記録した。また、蒔絵や玉飾りの接着剤、緑色の絃停、胴側面の黒漆塗膜表面などをデジタル顕微鏡写真で撮影した。
16. 修復後の全体と施工箇所の写真撮影を行った。

*11月2日より約2週間にわたり、学生、修復家、学芸員などを対象に漆工品修復のワークショップを行った。この中で修復例として今回の月琴の修復内容について講義を行った。



修復前
Before restoration



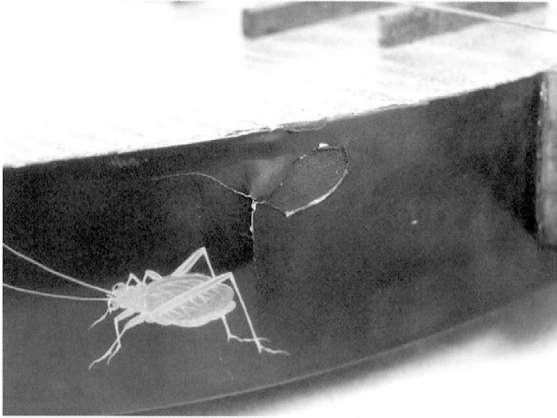
修復後
After restoration



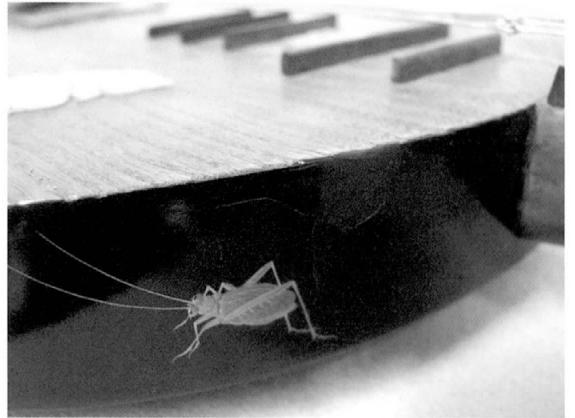
修復前
Before restoration



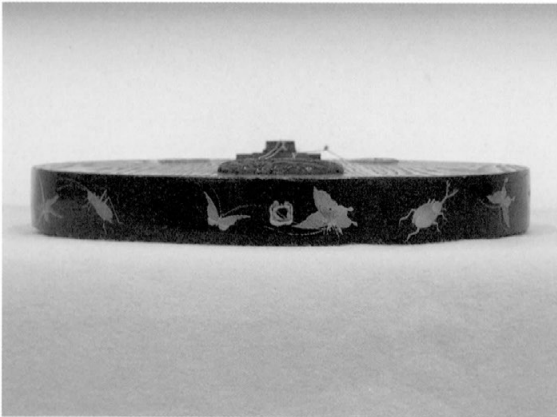
修復後
After restoration



修復前
Before restoration



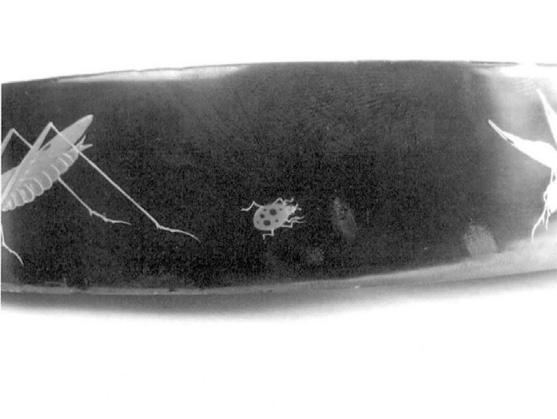
修復後
After restoration



修復前
Before restoration



修復後
After restoration



修復前
Before restoration



修復後
After restoration

On the Restoration of *Mondlaute Japanese (Gekkin)*

Shigeru Kitamura

Name of the object: *Mondlaute Japanese (Gekkin)*

Collection: Museum für Völkerkunde Wien

Period of manufacture: 19th century, Edo-Meiji periods

Dimensions: Length 55.5cm Width of the body: 31.4cm Height 6.7cm

Duration of restoration: October 2007 (1month)

1. Structure

The body and the neck are made of paulownia. The top board of the body is plain wood. The side face and the back of the body were made by coating black urushi over an urushi foundation and decorated with designs in slightly raised gold and silver *hiramakie*. The designs on the side face are those of insects including butterflies, moths, mayfly, bees, grasshoppers, crickets, snails and beetles. On the back are designs of flowers like Japanese bush clover (*hagi*), Japanese plum (*ume*), iris, narcissus and maple depicted inside circles. *Hangetsu*, a crescent-shaped ornament on the body, and *rento*, an ornament above the pegs, are made of Bombay black wood. A dragon is carved on the *hangetsu* and a phoenix on the *rento*. The pegs around which the string is wound is believed to be made of ebony. There are two jade ornaments carved in the design of plants on the top board. The pick guard is dyed green and lined with Japanese paper, but its material is not known (normally, skin of a python or *nishiki* fabric is used). A plectrum accompanies the instrument.

*One of the objects donated in 1877 by Wartinberg who visited Japan to investigate volcanoes; Wartinberg took many objects, including armor, back from Japan and donated them.

2. Conditions of damage

- There were cracks on the coating film on the side face of the body. The urushi coating film had become lifted from the substrate and damaged. It is believed that these cracks were caused by tension placed on the urushi coating film due to the shrinkage of the substrate and subsequent gaps that appeared at the joints of the substrate.
- Urushi coating film was missing next to the part where the neck is attached to the body, exposing the substrate. This part had been painted black. The urushi coating film around the missing area had cracked in two directions and become lifted.
- Many small liftings and losses of the urushi coating film were observed on the part where the side face of the body and the back meet.
- The neck had become loose. Because the neck was unstable, the urushi coating film around the mortise into which the tip of the neck was inserted had become damaged, exposing the foundation and

the joint.

- European coating material had been applied thinly to the surface of the urushi-coated sides of the body in a previous restoration and fingerprints were found on it.
- Only a very thin layer of coating material had been applied on the urushi coating film and the *makie* decoration on the back so that the luster of urushi had been maintained in a stable condition.
- A part of the jade ornament inlaid into the board had been lost and was replaced with a new one.
- The pick guard had become lifted from the body.
- The strings had become loose and one was not wound around the peg.

3. Restoration specifications and process

Principle concerning the restoration of designated cultural properties - that of the maintenance of the present condition - was followed.

1. It was decided that the content of restoration would be limited to what could be done within a period of one month.
2. It was decided that restoration would be conducted basically only on parts where urushi had been applied.
3. Photographs were taken of the entire object and details, including those of the damaged parts, prior to restoration.
4. Small strips of *gampi* paper were adhered to areas around the urushi coating film that had become lifted and were at risk of becoming completely detached. Diluted starch paste was used to adhere the strips. This was done so as to prevent further damage during restoration.
5. Parts where plain wood is used, such as the top board of the body and the neck, were cleaned by using a dry brush and cotton swabs. Inventory number and the name of the object written on the top board as well as natural stains caused by handling were left untouched in their present condition in accordance with the owner's request. Care was taken so as not to destroy the overall atmosphere.
6. Rather than using animal glue or similar adhesive to temporarily adhere the green pick guard attached to the top board, it was considered best to leave it as it is and to adhere it again when it would become completely detached. At that time its material and adhesive would be investigated. Thus, no treatment was conducted in this restoration and the pick guard was left in its present condition.
7. Parts of the jade ornament on the top board that had been restored previously were left as they were. During this restoration work, the other jade ornament came off. Observation revealed that kneaded rice had been used to adhere it. The adhesive was removed by applying a little moisture in order to make it swell and using a bamboo spatula. After preparing the adhesion surface, kneaded rice was used to return the jade ornament to its place.
8. Distilled water was used to clean the coating material that had been applied over the urushi-coated surface of the side face and the fingerprints as much as possible. It was found that the coating material that had been applied on the side face and that which was believed to be shellac could easily be dissolved with liquid, making it easy for fingerprints to be left if they were to come in contact with the coated surface. For this reason, it is necessary to avoid touching the urushi-coated surface with bare hands when handling the object in the future.
9. The cracks and liftings on the urushi coating film of the side face of the body were not caused by the

loss in the adhesive power of the urushi coating film but by the tension resulting from the shrinkage of the substrate. For this reason it was difficult to return them to their former condition by applying pressure. If they were press-stabilized by force, it would cause tension on other parts and lead to new cracks. Thus, places where the coating film had become lifted and where it was not possible to completely press-stabilize the coating film were left as they were. Instead, *kokuso* and *sabiurushi* were used to close the gaps caused by the lifting of the coating film. This way, it was possible to prevent further damage to the coating film. *Suriurushi* was applied several times to adjust the color and luster and to harmonize the restored parts with their surroundings.

10. *Kokuso* was used to reshape the areas on the side face and next to the joint with the neck where the urushi coating film was missing. *Kiwasabi* using blackened *sabiurushi* was applied. The surface of the area where *sabiurushi* was applied was made slightly lower than the urushi-coated surface in order not to damage the original urushi-coated surface. Then layers of *suriurushi* were applied to adjust luster and color and to harmonize the treated area with the surroundings.
11. With regard to the urushi coating film that had become lifted due to the cracks that ran in two directions from the area next to the joint of the neck where the coating film was missing, it was feared that the cracks would extend to the *makie* decoration if left untreated. So, first, the part of the layers of urushi coating film that overlapped was slightly scraped off. Then cracks on the urushi coating film were adhered with *mugiurushi* and pressure was applied gently to the urushi coating film that had become lifted by using the *shimbari* technique. In this way it was possible to prevent further damage. The color of the parts where the coating film was adhered was adjusted by applying *kiwasabi*.
12. It was decided that using animal glue to adhere the neck, which could easily be detached from the body because the joint had become loose, would be difficult since there was a gap between the body and the neck. Therefore, *mugiurushi* into which saw dust and hemp fibers had been added was used to fill and adhere the gap, taking care that it would not soil the plain wood area. As for the area around the mortise on the body into which the tip of the neck was inserted, the tenon and mortise were first joined with *mugiurushi*. Then *kokuso* was used to adjust the shape of the part where the coating film was missing. Then *kiwasabi* using *sabiurushi* that had been blackened by adding soot was done to smooth the surface. Next urushi was rubbed in several times (*suriurushi* technique) to adjust the luster and color of the restored part with those of the surroundings.
13. *Kijomi urushi* was applied to the parts around the corner where the side face and the back of the body meet and where the urushi coating film had been lost. After *kijomi urushi* had hardened, blackened *sabiurushi* was used to adjust the shape. This was then followed by applying *suriurushi* several times to adjust the luster and color to the surroundings.
14. The string that had been unwound from the peg was rewound.
15. Photographs were taken of the process of restoration. In addition, enlarged photographs taken with a digital camera were taken of the *makie* decoration, the adhesive used for the jade ornaments, the green pick guard and the surface black urushi coating film on the side face.
16. Photographs were taken of the object after restoration and of the parts restored.

*A workshop on the restoration of urushi objects was held for students, restorers and curators for two weeks beginning on November 2. The restoration of this *Gekkin* was introduced in the lecture as an example.

花門文虫蒔絵月琴 (ウィーン国立民族学博物館)

Mondlaute Japanese (Gekkin)
(Museum für Völkerkunde Wien)



修復前 全景
Before restoration, overall view



修復後 全景
After restoration, overall view